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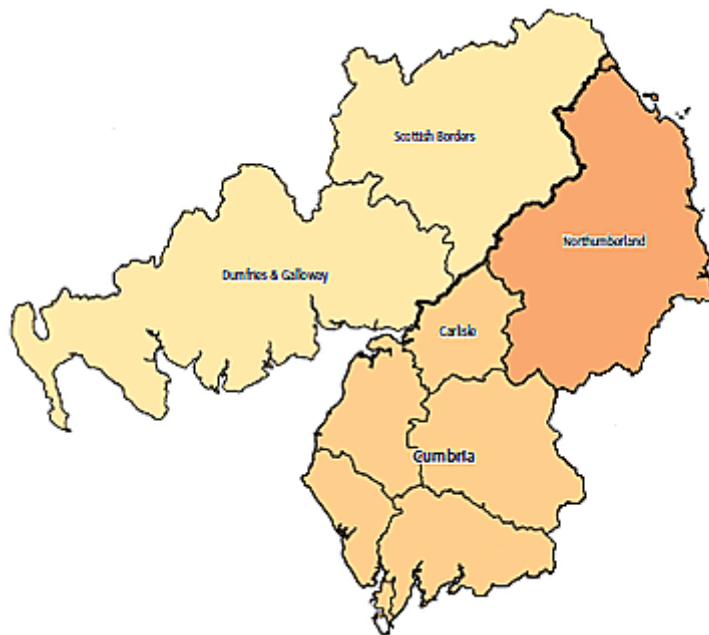
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Developing the Framework for a Borderlands Strategy

A report produced by the Universities of
Northumbria and Cumbria



November 2015

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Developing the Framework for a Borderlands Strategy

Executive Summary

Introduction

- The 2013 report, *Borderlands: can the North East and Cumbria benefit from greater Scottish Autonomy?*, recommended a new approach to boosting economic development across the Borderland area covered by Northumberland, Cumbria, Carlisle, Dumfries and Galloway and Scottish Borders councils.
- The report highlighted that the Borderlands have much in common: a shared history; the daily cross-border flows of people for work, shopping or family visits; and also shared experiences of economic and social change which has produced a number of common challenges and opportunities which lend themselves to a collaborative response.
- In April 2015, The Institute of Local Governance (on behalf of Northumberland County Council and the wider Borderlands Steering Group) commissioned the Universities of Cumbria and Northumbria to produce a detailed Framework Document that would underpin the development of a collaborative approach to economic development in the Borderlands.
- This study would provide comparative economic and social data which would serve as an in-depth and independent evidence base on which a collaborative approach for the Borderlands could be developed and promoted by the combined efforts of the 5 councils and their partners.
- The study would review the wide range of existing economic strategies operating across the Borderlands, identifying: priorities; key sectors; assets; challenges, and opportunities for collaboration particularly in relation to Energy, Forestry, Tourism, and Connectivity.

Economic Change in the Borderlands

- Work-based GVA has grown overall since the mid 2000's though the trend has been both uneven (particularly in Cumbria) and marked by years of absolute decline, most recently in the period 2008-9.
- The Borderlands economies, aggregated together, accounted for £18bn in terms of GVA in 2013 - roughly equivalent to the GVA generated by the economic activities operating in Tyneside (£17.1bn) or in the City of Edinburgh (£18.6bn).
- GVA per head in the Borderlands is significantly lower than – and is falling further behind - the Tyneside and Edinburgh areas, and is also well below the UK average.
- The sector with the highest contribution in GVA for Borderlands was public administration; education and health (20.7%) which was slightly higher than the national average of 19.3%. Edinburgh's highest GVA contribution came from

Financial and insurance activities (23.2%) and Tyneside's came from Public administration; education and health (28.4%).

- The sectors with the lowest contribution for GVA in Borderlands were Information and Communication (1.6% compared to UK 6.3%) and Financial and Insurance activities (2.1% compared to 8.2%).

Employment in the Borderlands

- In 2013, the Borderlands had a combined employment of 425,606. Of this total, Cumbria accounts for 53% (224,643), Northumberland 24% (102,493), Dumfries and Galloway for 13% (57,091) and Scottish Borders for 10% (41,379).
- There are broad similarities across the four strategic authorities: five sectors account for 60% of the total employment: *health* 16% (69,124); *manufacturing* 14% (59,421); *retail* 11% (48,683); *accommodation and food services* 10% (42,705); and *education* 8% (34,371).
- Manufacturing GVA in each of the four Borderland areas was above the national average of 10.1%, with Cumbria having a particularly high contribution (25.0%). Manufacturing in its present forms retains a significant presence across the Borderlands.
- From 2009 to 2013, there was a percentage fall in employment across the Borderlands of 1.9% representing a net loss of 8,054 employees. This masks significant variation in employment performance across both different sectors and different parts of the Borderland.
- There were significant falls in employment numbers in public administration and defence, retailing and construction; while growth was experienced in the health sector, arts, entertainment and recreation and business administration.
- The labour force in agriculture and fishing has grown recently across the Borderlands. 2015-2015 employment was around 24,300. This figure slightly exceeds employment in public administration, is fairly similar to construction and is equivalent to around 40% of the numbers employed in manufacturing.
- In 2013, forestry employed 7,343 people across the Borderlands with 48% in Cumbria; 28% in Northumberland; 18% in Dumfries & Galloway and 6% in the Scottish Borders. The sector saw employment increasing between 2009 and 2013 by 21%.

Population in the Borderlands

- The Borderlands, as a whole, contained well over one million inhabitants in 2014, ranging from nearly 500,000 in Cumbria to 114,000 in the Scottish Borders.
- The population over the age of 65 in the Borderlands has risen steadily from 18.8% in 2004 to 22.9% in 2014, compared with a UK average figure which rose from 15.9% to 17.7% in the same time period.

- The number of young people aged 0-15 has fallen consistently across the Borderlands, with the area experiencing a progressive *absolute* decline in numbers of Working Age Population over the period since 2008/9.
- While the English and Scottish indices of deprivation studies reveal that rural communities in the Borderlands are comparatively wealthy, there are still a number of smaller 'pockets' adjoining the Anglo-Scottish border that exhibit relatively high levels of socio-economic deprivation – a problem that seems to persist over time.

Strategic Alignment in the Borderlands

- The Borderlands is a unique area whose assets include: the quality and variety of natural landscapes which both contribute to residential desirability and the area's potential for tourism; natural resources; aspects of transport connectivity; and resilient businesses.
- The main shared priorities for sectoral targeting are Tourism and Energy (in all strategies), then Food and Drink (mentioned in 3) followed by Forestry, Creative Industries and Advanced Manufacturing (in 2). The latter is a significant source of employment.
- There remains significant employment in Advanced Manufacturing in the Borderlands, with particular concentrations in global companies.
- Two challenges stand out in all strategies: the *ageing of the population*; and the need to improve *GVA performance* - both in terms of growth rate (change in GVA per head) and levels of productivity (GVA per hour/per worker).

Tourism in the Borderlands

- The significance of tourism for the economies and communities in the Borderlands is strongly reflected in all strategies, and builds on the region's strengths, competitive advantages and potential for excellence.
- Tourism maximises the benefits from key natural assets in the landscapes, is a major employer, and offers linkages with other areas of the local economy.
- Concerns relate to low wage levels and seasonal work in the sector contributing to low productivity.
- All the four areas have many features to celebrate and which can be used to promote the whole area: these include reference to iconic Lake District associations with Romantic poets and Beatrix Potter as well as Hadrian's Wall, the Border Reivers, Northumberland National Park and coast, Holy Island, Gretna Green, Galloway Forest and heritage sites in the Border towns.
- There is also interest in developing new types of experiences including: the development of outdoor adventure and experience of "wilderness"; "dark skies" experiences; and "nature" tourism.
- Overcoming barriers to growth for the sector requires improvements in customer service skills, more effective management of market intelligence, and better use of

mobile technology to enhance visitor experience. There is also a need to spread the impact of tourism more evenly over these areas to avoid congestion at key sites and also to spread the effects over the seasons.

Energy in the Borderlands

- The energy sector is identified in all four strategic authorities as a sector priority across the Borderlands. Interest in development opportunities associated with renewable energy is particularly widespread.
- Several strategies make reference to the capacity to develop new low carbon technologies and products and seek to build on existing capacity for R&D in the low carbon and environmental goods and services sector.
- There is a shared understanding across Borderlands of the barriers that prevent the further development of smaller scale, community-based, renewable energy projects. This includes the lack of availability of appropriate sources of funding for micro projects.

Forestry in the Borderlands

- Forestry has not been a major growth industry in all parts of the Borderlands. However, there is an emphasis on the scale of this resource in the Borderlands and its development potential.
- Benefits include the scale of timber production, but also adding value to timber products, the development of timber technologies and the use of woodland as an input to biomass energy.
- Forestry's economic impacts can extend into other sectors, including Tourism.
- An important area of shared learning is how to most effectively invest in skills and knowledge in this sector.

Connectivity in the Borderlands

- There is also much common interest in enhancing connectivity both within the Borderlands, and with neighbouring regions, and on the need for investment in basic infrastructure.
- Prominence is given to the significance of major road networks – including routes across the border.
- Rail connectivity is also celebrated, including the prospects for economic development associated with the opening of the new Borders railway.
- Connectivity challenges include improving east-west connectivity on both sides of the Anglo-Scottish Border and also the connectivity of free-standing market towns across Northumberland and in the Scottish Borders.
- The strategies also stress the need for constant improvement in digital connectivity.

- There is support for sustainable and low carbon transport measures in all strategies, including the link to tourism, where there is potential for strategic cycling and walking routes across the Borderlands.

Borderlands: Stakeholder Views

- There was a good level of awareness of the Borderlands Initiative – although some confusion over how this approach related to that advocated in the House of Commons Scottish Affairs Committee’s report, ‘Our Borderlands, Our Future’.
- All those interviewed supported, in principle, a Borderlands approach and saw a cross-border collaborative approach as adding value in a number of specific sectors, including projects developing community-based approaches to renewable energy, green tourism and timber transport.
- A majority of respondents felt that a collaborative Borderlands approach should be utilised where it could achieve outcomes that individual councils couldn’t achieve alone. Some argued that the formulation of yet another new strategy or the creation of another formal partnership would be counter-productive.

Opportunities for Collaboration

- This study, while capturing differences in the economies and policy priorities of the Borderland local authorities, found that the available data reinforces the case for a collaborative approach across the Borderlands discussed in the initial meetings of council leaders at Peebles, and then, Carlisle in the spring and autumn of 2014.
- There should be an emphasis on realistic, ‘common-sense’ collaboration which is alert to the challenges that such a collaborative approach would face in the context of both the barriers to joint-working and of the rapidly shifting devolution agenda.
- A Borderlands approach should be ‘agile’ in operating as a flexible network rather than a formal partnership. The network would serve to improve cross-border communication; share intelligence; strengthen co-ordination; bring the right people together to collaborate on specific projects; share good practice; and - where needed - provide for a common voice on issues of mutual concern.
- In order to provide a framework within which the suggested opportunities for collaboration can be located, a distinction can be made using two criteria: the different *scale* at which the opportunity can be taken forward and the *intensity* of the collaborative relationship required.
- In terms of *scale*, we can contrast macro-level collaborations that would be best suited to a common approach across the whole Borderlands area and micro-level collaborations that would involve joint working between a smaller number of Borderland councils and cover only a part of the area.
- In terms of *intensity*, we can contrast looser relationships that involve better communication, information sharing, the exchange of ideas, and the sharing of best practice, with the more formal relationship needed when lobbying government, bidding for resources, or co-operating on sectoral or strategic developments.

- This allows potential collaborations to be located in four different categories:
 - *Macro-Higher Intensity*: A Borderlands-wide approach, involving all councils and a range of stakeholders. This could involve lobbying, bidding for resources, or enabling sectoral or strategic development.
 - *Macro-Lower Intensity*: A Borderlands-wide approach which: shares intelligence and good practice; establishes collaborative fora; and acts as a network to link similar initiatives across the Borderlands.
 - *Micro-Higher Intensity*: Formal joint-working between a smaller number of Borderlands councils and their key partners.
 - *Micro-Lower Intensity*: Networking and sharing information and best practice between a smaller number of Borderlands councils.
- In outlining the range of possible collaborative opportunities, (see Figure on page 10 below), the aim is not to make a judgment over which is the 'best' option, but to indicate both the different ways that a Borderlands approach can be utilised and the variation in the *scale* and *level* of collaboration likely to be required. The eventual choice of opportunity will be shaped by the opportunities for, and constraints on, collaboration, and by the priorities of the Borderlands councils and their partners.

Borderlands: Collaborative Opportunities

<u>Macro-Higher Intensity</u>	<u>Macro-Lower Intensity</u>
<p>Provide a Borderlands 'Voice' to EU and National Governments</p> <p>Promote the Borderlands as an exemplar of an innovative approach to rural development</p> <p>Develop a Borderland 'Brand' for Marketing and Promotion</p> <p>Develop a Borderlands Forestry Compact</p> <p>Develop a Borderlands Strategy for Community-Based Renewable Energy Projects</p> <p>Develop a Borderlands approach to Green (Sustainable) Tourism</p> <p>Develop a Borderlands approach to developing new low carbon technologies and products.</p>	<p>Share good practice on planning approaches to onshore wind power</p> <p>Discuss and share approaches to using smartcard technology to reduce barriers for people using passenger transport</p> <p>Explore opportunities to increase linkages between manufacturing firms across the Borderlands</p> <p>Develop a joint-seminar series on the challenges and opportunities of an ageing population</p> <p>Establish a Borderlands Skills Network</p> <p>Establish a Borderlands Farmers Forum</p> <p>Identify opportunities for cross-border rural business development e.g. amongst artisan and small scale food companies.</p>
<u>Micro-Higher Intensity</u>	<u>Micro-Lower Intensity</u>
<p>Develop a new approach to the Solway as both an Energy Gateway and area of marine tourism</p> <p>Develop a strategy for energy capture and storage across Cumbria and Dumfries and Galloway</p> <p>Create an international strategy for Dark Skies tourism that draws upon both Kielder and Galloway Forest</p> <p>Develop a more co-ordinated approach to coastal paths and cycle routes on the east and west coasts</p> <p>Use the Borderlands approach to lobby for the extension of the 'Waverley' line to Carlisle.</p> <p>Explore how the recent designation of a North East Combined Authority, (NECA), can provide greater opportunities for promoting cross-border collaboration</p>	<p>Develop a network of the free-standing market towns across Northumberland and the Scottish Borders to encourage the sharing of ideas on economic development</p> <p>Bring together interested parties to consider how to make the most of the key resource that is the River Tweed</p> <p>Bring together interested parties to consider how the existing EU LEADER programmes across Northumberland and Cumbria can be effectively integrated with other EU Programmes.</p> <p>Explore how particular areas of the Borderlands approach (such as rural development) can also incorporate and involve Durham County Council.</p>

1. INTRODUCTION

1.1. In 2013, the Association of North East Councils and the Institute for Local Governance commissioned a research team led by Northumbria University to undertake a broadly-based study of the potential challenges and opportunities for the North of England of a more powerful Scotland following the 2014 Independence Referendum. The subsequent report, *Borderlands: Can the North East and Cumbria benefit from Greater Scottish Autonomy?* gained wide coverage and stimulated public and political debates on both sides of the Border.

1.2. The report highlighted that the Borderlands have much in common: a shared history; the daily cross-border flows of people for work, shopping or family visits; and also shared experiences of economic and social change which has produced a number of common challenges and opportunities which lend themselves to a collaborative response.

1.3. One major recommendation of the report - to consider the benefits of the 5 Border local authorities working more collaboratively – has been taken forward by Cumbria, Carlisle, Northumberland, Dumfries and Galloway and Scottish Borders Councils and has been the subject of two major summit events in Peebles and Carlisle in April and November 2014. Following these discussions, the five councils agreed to work together to maximise cross border opportunities, address common challenges, achieve economies of scale and scope in the delivery of strategic projects and services, and speak with a collective voice to Governments in both Edinburgh and London.

1.4. This approach was also welcomed by the House of Commons Scottish Affairs Committee in their recent report, *Our Borderlands - Our Future* (March 2015). In the report, the committee confirmed the importance of the Borderlands Initiative in terms of effective cross-border and collaborative working and in delivering major economic benefits for the Borderlands area. More recently, a number of MPs in the area and the Scottish Secretary, David Mundell, have expressed their support for the Borderlands approach.

1.5 In April 2015, The Institute of Local Governance (on behalf of Northumberland County Council and the wider Borderlands Steering Group) commissioned the Universities of Cumbria and Northumbria to produce a Framework Document that would underpin the development of a strategic approach to economic development in the Borderlands.

This second phase of work would include:

- Developing an independent evidence base (both quantitative and qualitative) on which a collaborative approach for the Borderlands can be developed and promoted by the combined efforts of the 5 councils and their partners.
- Review the wide range of existing economic strategies operating across the Borderlands, identifying: priorities; key sectors; assets; challenges, and

opportunities for collaboration particularly in relation to Energy, Forestry, Tourism, and Connectivity.

- Provide comparative economic and social data that would underpin the identification of opportunities for collaboration
- Configure data for the Borderlands on the basis of 5 *Economic Corridors* (Eastern, Central, Western, Southern, and South Western)
- Capture the views of a range of key stakeholders on the opportunities of a Borderlands approach via workshop events
- Highlight collaborative approaches that would form the basis for engagement with UK and Scottish Governments on the basis that they could deliver real benefits for Borderland communities

1.6. Since the work was commissioned, discussions with the Borderlands Steering Group over the appropriateness of data, and the evolving priorities and imperatives within the devolution agenda itself, has required some refocussing of the original brief in three areas:

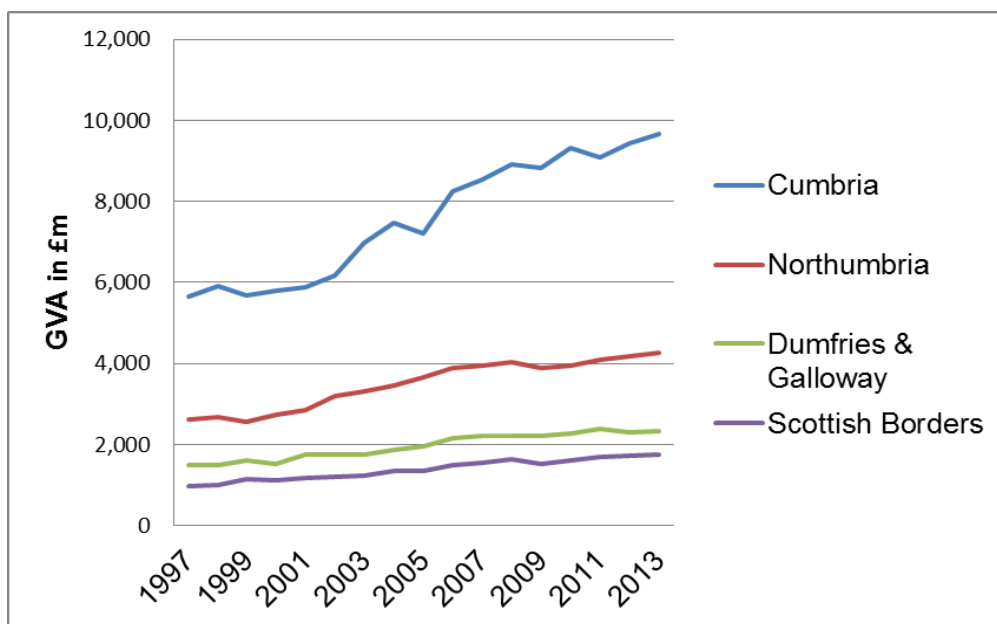
- The challenges of collecting data that coherently maps on to the five economic corridors were such that the team felt it would be clearer and more practical to keep to the local authority boundaries that comprise the Borderlands
- Due to the challenges of organising stakeholder workshops, it was agreed to undertake a series of individual telephone interviews with stakeholders from across the Borderlands
- Given the rapidly developing devolution agendas - on both sides of the border - it was appropriate that the report took account of this fluid situation when framing any recommendations

2. ECONOMIC CHANGE IN THE BORDERLANDS

2.1. Over the past decade, economies across the Borderlands have experienced many of the economic challenges that have faced the UK as a whole. This is reflected in trends in many economic indicators, including changes in gross value-added (GVA). Work based GVA has grown overall since the mid 2000's though the trend has been uneven and marked by years of absolute decline, most recently in the period 2008-9 (Figure 1).

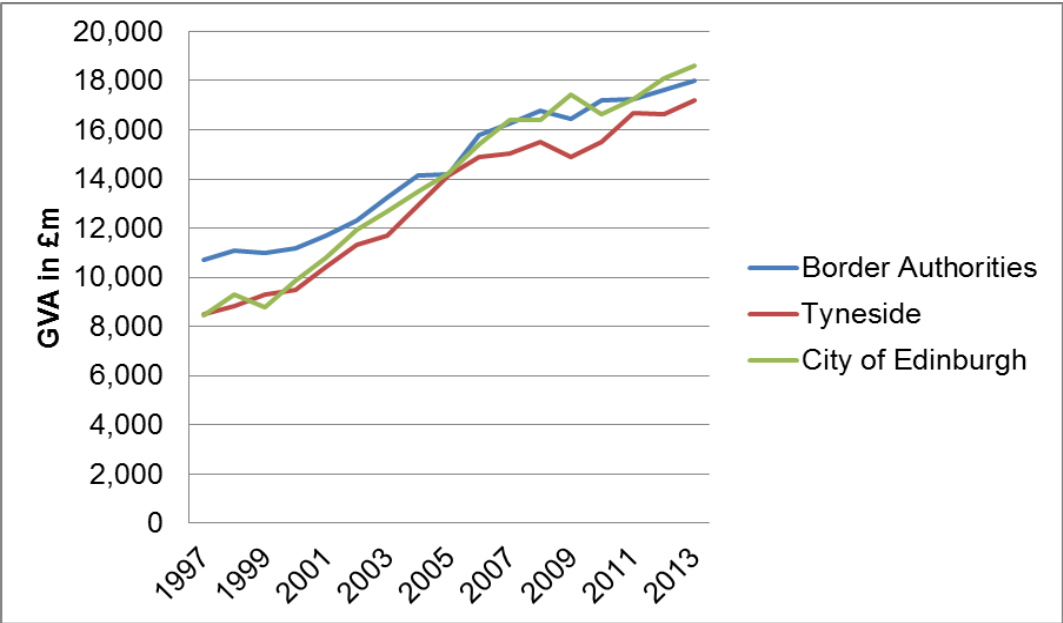
2.2. The uneven performance of GVA is especially noticeable in the County of Cumbria. The most recent data comparing 2011 with 2013 shows significant improvement in Cumbria (+6.6%), growth in Northumberland and Scottish Borders (+3.7%), though decline in Dumfries & Galloway (-2.1%). These trends however should be viewed in the context of the historic volatility that tends to characterise changes in GVA at local levels.

Figure 1: Work based GVA for the four Borderlands Authorities



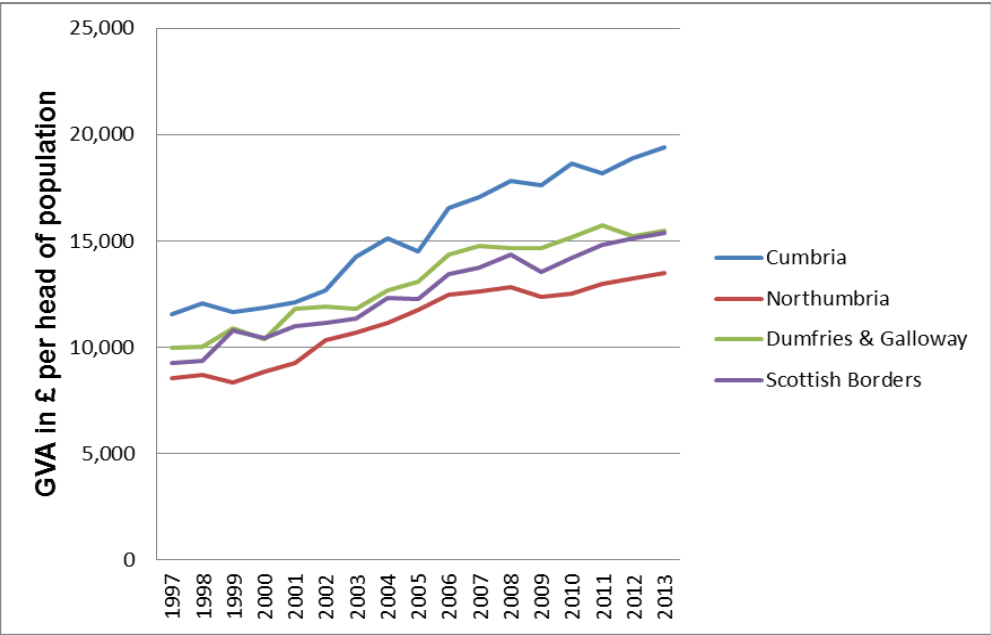
2.3. GVA data can be used to gauge the scale of the Borderlands economy in comparison with other areas of Northern England and Scotland. The Borderlands economies aggregated together accounted for around £18bn in terms of GVA in 2013. As can be seen in Figure 2, this is roughly equivalent to the GVA generated by the economic activities operating in Tyneside (£17.1bn) or in the City of Edinburgh (£18.6bn). Figure 2 also shows that while GVA trends have varied from year to year, the level of GVA in the Borderlands was consistently higher than Tyneside and the City of Edinburgh between 1997 and 2005, but that since then absolute levels of GVA have been comparable between these territories.

Figure 2: Comparison of GVA trends 'Borderlands, Tyneside and the City of Edinburgh



2.4. GVA per head is used to standardise this data for population size. Figure 3 shows similar volatility in the GVA trends for each Borderlands Authority and demonstrates recovery in Cumbria, Northumberland and Scottish Borders in contrast to recent economic downturn in Dumfries and Galloway.

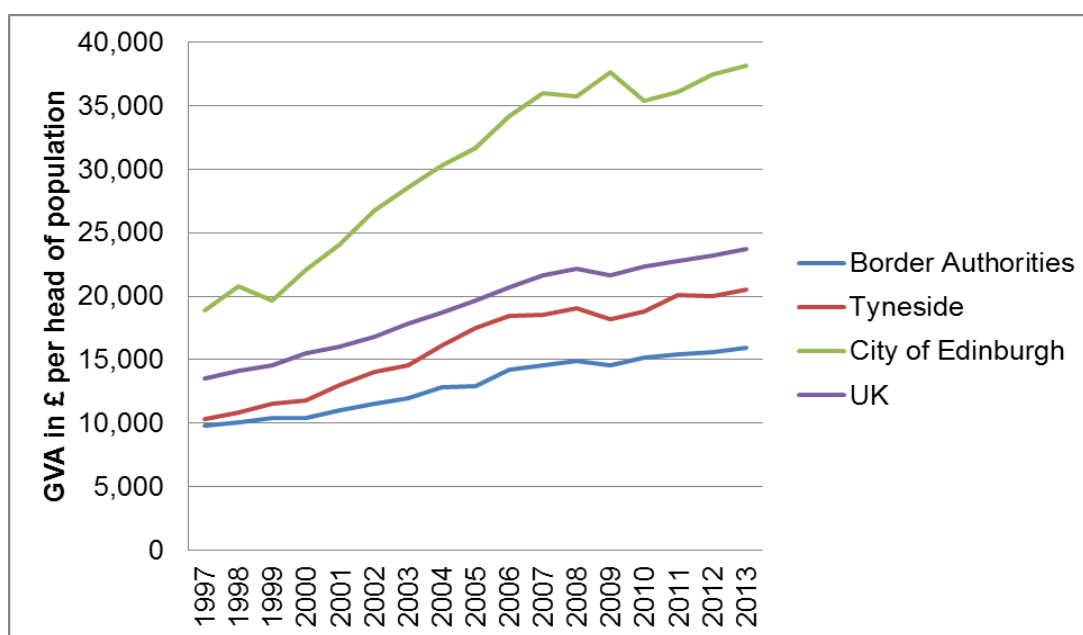
Figure 3: GVA per head of population across the Borderlands Authorities



2.5. GVA per head can be combined to give an overall measure for the Borderlands. On this measure, a more salutary picture is provided by comparison with neighbouring Tyneside and the City of Edinburgh.

Figure 4 shows that GVA per head in the Borderlands is significantly lower than these other territories and also well below the UK average. The combined increase of GVA per head of population for the 'Borderlands' area is £6,105 (62%) and this compares to an increase in Tyneside of £10,158 (98%), Edinburgh of £19,215 (102%) and the UK of £10,253 (76%). This would indicate that the GVA per head of population in the 'Borderlands' area is falling further behind the Tyneside and Edinburgh areas.

Figure 4: Comparison of trends in GVA per head of Population



2.6. The comparative changes in GVA may reflect the sectoral breakdown from which the GVA comes for each of the regions (see Table 1). In 2012 the sector with the highest contribution in GVA for Borderlands was Public administration; education and health (20.7%) which was slightly higher than the national average of 19.3%.

This was not distributed evenly across the four authorities: Northumbria (25.4%), Dumfries & Galloway (23.2%) and Scottish Borders (21.6%) were all above the national average whilst Cumbria (17.9%) was well below. Manufacturing in Borderlands was well above the national average (Borderlands contribution of 19.9% to UK's 10.1%). This was mainly due to the high contribution to this sector in Cumbria (25.0%).

The sectors with the lowest contribution for GVA in the Borderlands were: Information and communication (1.6% compared to UK 6.3%); and Financial and insurance activities (2.1% compared to 8.2% in the UK). In contrast, Edinburgh's

highest GVA contribution came from Financial and insurance activities (23.2%), while Tyneside's came from Public administration, Education and Health (28.4%)

Table 1: GVA by Sector in the Borderlands, Tyneside and City of Edinburgh

	Cumbria	Northumbria	Dumfries & Galloway	Scottish Borders	Tyneside	Edinburgh	UK	Border Authorities
Agriculture, forestry and fishing	2.1%	3.6%	5.0%	6.7%	0.1%	0.1%	0.7%	3.3%
Production (excluding manufacturing)	2.3%	4.0%	4.6%	1.9%	1.7%	2.4%	3.1%	2.9%
Manufacturing	25.0%	13.7%	14.9%	13.4%	10.4%	3.3%	10.1%	19.9%
Construction	7.9%	8.8%	6.9%	8.1%	5.4%	3.3%	6.1%	8.0%
Distribution; transport; accommodation and food	20.7%	18.5%	20.6%	19.2%	16.2%	13.4%	18.4%	20.0%
Information and communication	1.7%	1.6%	1.4%	1.3%	6.4%	5.0%	6.3%	1.6%
Financial and insurance activities	2.0%	2.2%	2.1%	2.0%	4.7%	23.2%	8.2%	2.1%
Real estate activities	7.8%	10.9%	10.9%	14.6%	12.5%	10.7%	11.5%	9.6%
Business service activities	8.4%	7.0%	6.4%	7.1%	10.4%	13.2%	12.1%	7.7%
Public administration; education; health	17.9%	25.4%	23.2%	21.6%	28.4%	21.9%	19.3%	20.7%
Other services and household activities	4.2%	4.4%	4.0%	4.0%	3.6%	3.6%	4.1%	4.2%

3. EMPLOYMENT IN THE BORDERLANDS

3.1. This section examines the sectoral pattern of employment across the Borderlands and summarises recent changes in employment performance across the area.

Using official data from the Business Register Employment Survey (BRES), available from the Office of National Statistics (ONS), it is possible to aggregate data to show the employment structure of the Borderlands as a whole by combining data from the four strategic authorities bordering the Anglo-Scottish border (Cumbria, Northumbria, Dumfries & Galloway and Scottish Borders). In 2013, BRES identified a combined employment figure for the Borderlands of 425,606 (see Table 2). Of this total, Cumbria accounts for 53% (224,643), Northumberland 24% (102,493), Dumfries and Galloway for 13% (57,091) and Scottish Borders for 10% (41,379).

The Sectoral composition of employment

3.2. The employment structure of the Borderlands shows five prominent sectors that account for 60% of the total employment across the four authorities. These sectors are: health 16% (69,124); manufacturing 14% (59,421); retail 11% (48,683), accommodation and food services 10% (42,705) and education 8% (34,371).

3.3. The data also shows that there are broad similarities across the four strategic authorities. The health sector, for instance, is the largest employer in Northumberland (19,567), Dumfries and Galloway (10,195) and the Scottish Borders (8,164), and the second largest employer in Cumbria (31,198). Retailing is the third largest sector for Cumbria (25,263), Northumberland (11,856) and the Scottish Borders (4,552) and the second largest employer for Dumfries and Galloway (7,012). Linked to tourism, all areas also have significant numbers employed in the accommodation and food sector, which accounts for 10% of employment across the Borderlands.

3.4. While large parts of the Borderlands are rural in character, manufacturing activity provides employment for significant numbers of workers in the area. The data suggests that manufacturing activity is located quite widely across the Borderlands. There are particular concentrations, however, in Cumbria (16% of total), notably in the West of the County.

3.5. The manufacturing sector is recorded as the largest employer in Cumbria (36,946), the second largest in Northumberland (11,618) and Scottish Borders (5,001), and the third largest in Dumfries & Galloway (5,856). These figures reflect the fact that, despite long-term decline in traditional industries (notably, coal mining, steel, engineering, shipbuilding, and textiles), manufacturing in its present forms retains a significant presence across the Borderlands.

Table 2: Employment by sector 2013

	Cumbria		Northumberland		Dumfries & Galloway		Scottish Borders		Borderlands	
	n	%	n	%	n	%	n	%	n	%
Agriculture, forest etc.	787	0	278	0	899	2	596	1	2,560	1
Mining, quarrying etc.	2,367	1	2,002	2	1,034	2	433	1	5,836	1
Manufacturing	36,946	16	11,618	11	5,856	10	5,001	12	59,421	14
Construction	13,255	6	5,850	6	3,305	6	3,020	7	25,430	6
Motor trades	4,818	2	2,513	3	1,468	3	1,222	3	10,021	2
Wholesale	6,512	3	2,480	2	2,061	4	1,483	4	12,536	3
Retail	25,263	11	11,856	12	7,012	12	4,552	11	48,683	11
Transport & storage	9,566	4	3,403	3	2,714	5	964	2	16,647	4
Accomm & food	23,845	11	10,114	10	5,580	10	3,166	8	42,705	10
Info & communication	2,666	1	1,172	1	550	1	410	1	4,798	1
Financial & insurance	2,565	1	1,167	1	576	1	419	1	4,727	1
Property	3,682	2	1,506	2	868	2	811	2	6,867	2
Prof & scientific	12,207	5	4,513	4	2,215	4	2,270	6	21,205	5
Business admin	10,098	5	5,372	5	1,820	3	1,605	4	18,895	4
Public admin/defence	10,475	5	5,082	5	3,294	6	2,167	5	21,018	5
Education	18,851	8	7,615	7	5,132	9	2,773	7	34,371	8
Health	31,198	14	19,567	19	10,195	18	8,164	20	69,124	16
Arts, entertainment,	9,542	4	6,386	6	2,510	4	2,323	6	20,761	5
Column Total	224,643		102,493		57,091		41,379		425,606	

Source: BRES data accessed via NOMIS

Employment Change in the Borderlands

3.6. Across the Borderlands from 2009 to 2013, there was a percentage fall in employment of 1.9% representing a net loss of 8,054 employees (see Tables 3 and 4). This average, however, masks significant variation in employment performance across different sectors. There were significant absolute falls in employment numbers in several key sectors including public administration and defence (-6,364), retailing (-3,041) and construction (-2,806). In contrast, growth was experienced in

the health sector (+4,327), arts, entertainment and recreation (+1,224) and business administration (+1,275). There were also large percentage decreases in some smaller sectors, as in Information and Communication (-19.2%) and Finance & Insurance (-13.2%).

Table 3: Change in employment 2009-13

	Cumbria	Northumberland	Dumfries & Galloway	Scottish Borders	Borderlands
Agriculture, forestry & fishing	-76	-169	101	49	-95
Mining & utilities	-291	760	-43	189	615
Manufacturing	788	-727	-591	-468	-998
Construction	-1,230	-1,165	-187	-224	-2,806
Motor trades	67	169	173	62	471
Wholesale	283	-181	-272	-24	-194
Retail	-2,492	149	-331	-367	-3,041
Transport & storage	832	5	106	-381	562
Accommodation & food services	-1,442	1,215	339	-488	-376
Information & communication	-653	-378	-33	-73	-1,137
Financial & insurance	-582	-38	-93	-7	-720
Property	-273	-521	146	3	-645
Prof, scientific & technical	1,476	-1,171	-513	557	349
Business administration	-293	1,076	459	33	1,275
Public admin& defence	344	-7,102	-179	573	-6,364
Education	2,050	-2,511	200	-240	-501
Health	1,695	4,378	-805	-941	4,327
Arts, entertain, recreation	-837	1,199	374	488	1,224
TOTAL	-635	-5,013	-1,146	-1,260	-8,054

Source: BRES Data accessed via NOMIS

3.7. Interestingly, these patterns of change varied considerably across different parts of the Borderland. The drop in employment in public administration is very specific to changes in Northumberland which experienced a decline of 58.3% in this time period. The decline in construction was also particularly severe in Northumberland (6.6%). In contrast, retailing has performed relatively well in Northumberland (+1.3%) compared to significant declines in Cumbria (-9%) and Scottish Borders (-7.5%).

3.8. As regards growth sectors, again, this is unevenly distributed with major increases in employment in health in Northumberland (+28.8%), slower growth in Cumbria (+5.7%), and declines in both Dumfries & Galloway (-7.3%) and in Scottish

Borders (-10.3%). Other notable exceptions include the relatively good employment performance in transport & storage in Cumbria (+9.5%), reflecting, in part, the continued expansion of the Stobart Group, and also the positive trends affecting accommodation and food services in Northumberland (+13.7%) and Dumfries & Galloway (+6.5%). The strong growth in Arts, entertainment and recreation is notable in Scottish Borders (+26.6%), Northumberland (+23.1%) and Dumfries & Galloway (+17.5%).

Table 4: Percentage change in employment 2009-13

	Cumbria	Northumberland	Dumfries & Galloway	Scottish Borders	Borderlands
Agriculture, forestry & fishing	-8.8	-37.8	12.7	9.0	-3.6
Mining & utilities	-10.9	61.2	-4.0	77.5	11.8
Manufacturing	2.2	-5.9	-9.2	-8.6	-1.7
Construction	-8.5	-16.6	-5.4	-6.9	-9.9
Motor trades	1.4	7.2	13.4	5.3	4.9
Wholesale	4.5	-6.8	-11.7	-1.6	-1.5
Retail	-9.0	1.3	-4.5	-7.5	-5.9
Transport & storage	9.5	0.1	4.1	-28.3	3.5
Accommodation & food services	-5.7	13.7	6.5	-13.4	-0.9
Information & communication	-19.7	-24.4	-5.7	-15.1	-19.2
Financial & insurance	-18.5	-3.2	-13.9	-1.6	-13.2
Property	-6.9	-25.7	20.2	0.4	-8.6
Prof, scientific & technical	13.8	-20.6	-18.8	32.5	1.7
Business administration	-2.8	25.0	33.7	2.1	7.2
Public admin& defence	3.4	-58.3	-5.2	35.9	-23.2
Education	12.2	-24.8	4.1	-8.0	-1.4
Health	5.7	28.8	-7.3	-10.3	6.7
Arts, entertain, recreation	-8.1	23.1	17.5	26.6	6.3
TOTAL	-0.3	-4.7	-2.0	-3.0	-1.9

Source: BRES Data accessed via NOMIS

The Labour Force in Agriculture, Forestry and Fishing

3.9. The BRES data used to show employment structure does not include the labour force engaged directly in farming activities; hence the data for agriculture, forestry and fishing largely reflects the latter activities added to employment in some services to agriculture. However, it is possible to demonstrate the numerical significance of the labour force in agriculture, which includes a large number of family-run farms, using data from the Annual Population Survey (APS) workplace analysis. This data

is based on a sample survey of households so there are inaccuracies particularly at smaller spatial scales¹. Even so, this data suggests that the labour force in agriculture and fisheries for the Borderlands between April 2014 and March 2015 was around 24,300. Putting this in perspective, the labour force in agriculture and fishing slightly exceeds employment in public administration, is fairly similar to construction and is equivalent to around 40% of the numbers employed in manufacturing.

3.10. The APS data also shows that the labour force in agriculture and fishing has grown recently across the Borderlands. Across the whole area, the labour force has expanded, from an estimated 21,200 during the period April 2009 to March 2010, up to its present level, representing an increase of 14.6%. Sample sizes are small at the level of individual counties, but even allowing for possible sampling errors, the variation in employment performance in this sector is quite striking. The data records strong growth in the farm labour force in Scottish Borders (+61%) and Dumfries & Galloway (+22.6%) which is only partially mirrored in Northumberland (+16.7%). Cumbria, meanwhile, has witnessed a decline (-4%).

3.11. BRES data can be used, however, to isolate employment in forestry. Figures on forestry employment can be determined by combining data from BRES on the SIC codes recommended by the Forestry Commission². These codes were: **02** (Forestry and logging); **16** (Manufacture of wood and of products of wood and cork, except furniture; manufacture of articles of straw and plaiting materials); and **17** (Manufacture of paper and paper products). Using this method, in 2013, Forestry employed 7,343 people across the Borderlands with 48% (3,535) in Cumbria; 28% (2,068) in Northumberland; 18% (1,315) in Dumfries & Galloway and 6% (425) in the Scottish Borders. The BRES data also shows an increase in Forestry employment between 2009 and 2013 of 21% (+1,282) with particularly strong growth in Cumbria (+37.8%).

¹ The Annual Population Survey (APS) is a combined survey of households in Great Britain. Its purpose is to provide information on key social and socioeconomic variables between the 10-yearly censuses, with particular emphasis on providing information relating to sub-regional (local authority) areas. Based on the methodology used for this sample based survey, the figures are offered at a 95% confidence level and due to sample size limitations, APS data is not available below local authority level (i.e. data is not available for wards and super output areas). The sample size across the four authorities (total sample size for Borderlands) in 2009-10 was 5113 and in 2014-15 was 1448 (Cumbria 1,428 and 1,448, Northumberland 1017 and 1,282, Dumfries and Galloway 1,333 & 1,300 and Scottish Borders 1,017 & 1,282).

² <http://www.forestry.gov.uk/website/forstats2014.nsf/0/D7DD6DF6687BC57880257A32004E1A4F>

4. POPULATION IN THE BORDERLANDS

4.1. The Strategic Authorities situated adjacent to the Anglo-Scottish Border cover an extensive area of Northern England and Southern Scotland. They contain dispersed settlements including industrial centres, market towns, smaller service centres and villages.

While population density is relatively low, the Borderlands as a whole contained well over one million inhabitants in 2014 (Table 5). This is distributed over the counties of Cumbria (497,900) and Northumberland (316,000) within Northern England, and Dumfries & Galloway (149,900) and Scottish Borders (114,000) in Southern Scotland (see Table 2).

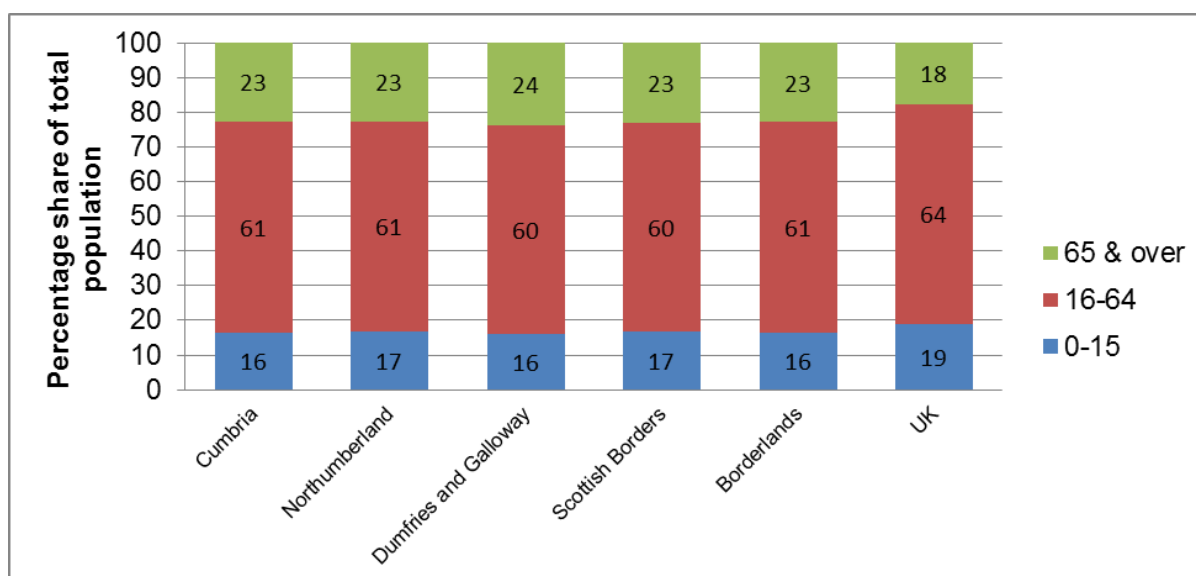
In terms of population structure, the latest data for 2014 shows that the Borderlands has above average numbers in older age groups (23% over the age of 65) and below average population of working age (61%) and under 16s (16%) (See Figure 5)

Table 5: Population in the Borderlands 2014

	Dumfries& Galloway	Scottish Borders	Cumbria	Northumberland	Borderlands
0-15	23,900	19,100	81,700	52,600	177,300
16-64	90,200	68,600	303,000	192,300	654,100
64+	35,800	26,300	113,200	71,100	246,400
Total	149,900	114,000	497,900	316,000	1,077,800

Source: ONS mid-year population estimates accessed via NOMIS

Figure 5: Population age in the Borderlands 2014



Source: ONS mid-year population estimates accessed via NOMIS

4.2. In aggregate terms, the size of population in the Borderlands has been relatively static over the past decade. Between 2004 and 2014, the population of the UK has risen by over 7%, while in the Borderlands population has grown by only 1.4%.

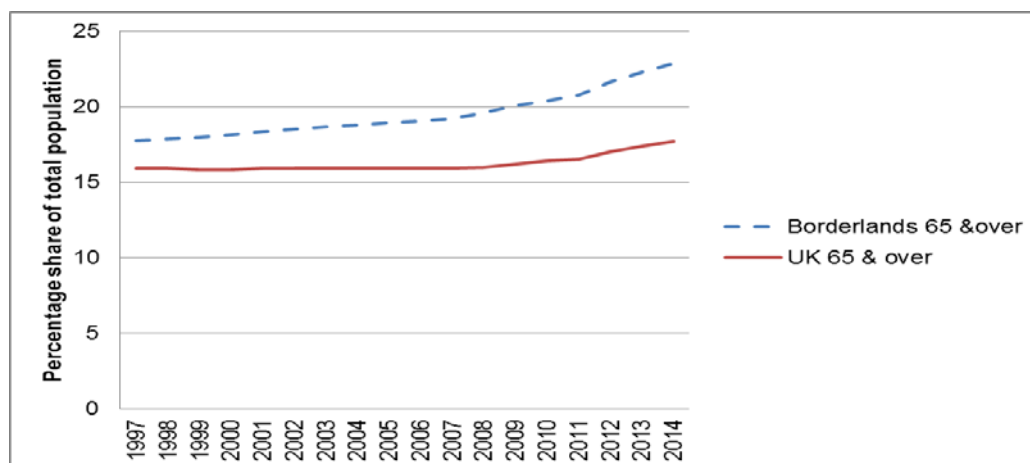
There are slight variations across the Borderlands, with slightly higher growth in Scottish Borders (+4.1%) and Northumberland (+1.9%), compared to Dumfries & Galloway (+ 0.8%) and Cumbria (+0.6%). Even so, the dominant characteristic is one of slow growth compared to national norms.

4.3. There has, however, been significant recent change in population structure. As will be noted later in this report, the ageing of the population is a key factor influencing local policies across the Borderlands. Viewed in aggregate, data indicates that the population over the age of 65 in the Borderlands has risen steadily from 18.8% in 2004 to 22.9% in 2014. This compares with a UK average which rose from 15.9% to 17.7% in the same time period.

Figure 6 also makes clear that the rate of ageing of the population in the Borderlands is significantly greater than the UK as a whole.

Overall, the numbers of people aged 65 and over has risen from 199,800 in 2004 to 246,400 in 2014 - an increase of 18.9%.

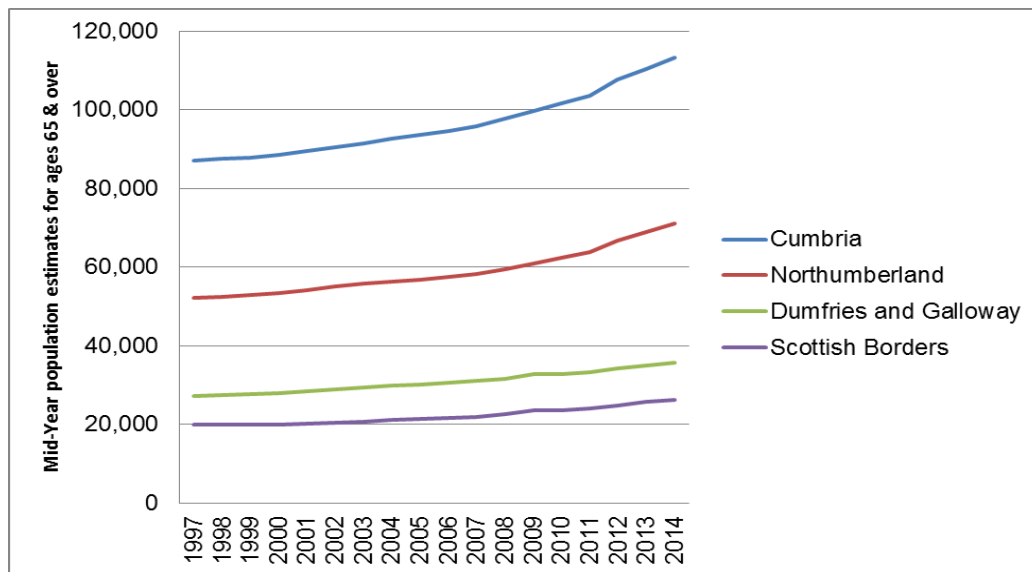
Figure 6: Population aged over 65 Borderlands compared to UK 1997 – 2014



Source: ONS mid-year population estimates accessed via NOMIS

4.4. Figure 7 shows that this is a common feature displayed in all four strategic authorities in the Borderlands.

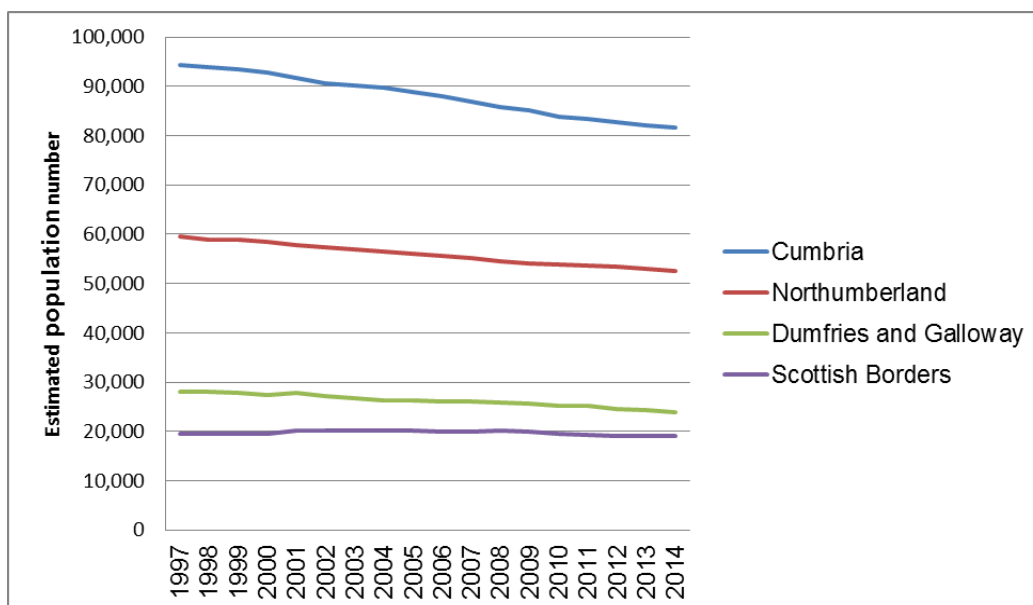
Figure 7: Population aged over 65 in the Borderlands 1997-2014



Source: ONS mid-year population estimates accessed via NOMIS

4.5. The process of population ageing is also reflected in the number of young people aged 0-15. Figure 8 shows that numbers in this category have fallen consistently across all four Strategic Authorities, though the decline is less steep in Scottish Borders.

Figure 8: Change in Proportion of Young People Aged 0-15, 1997-2014

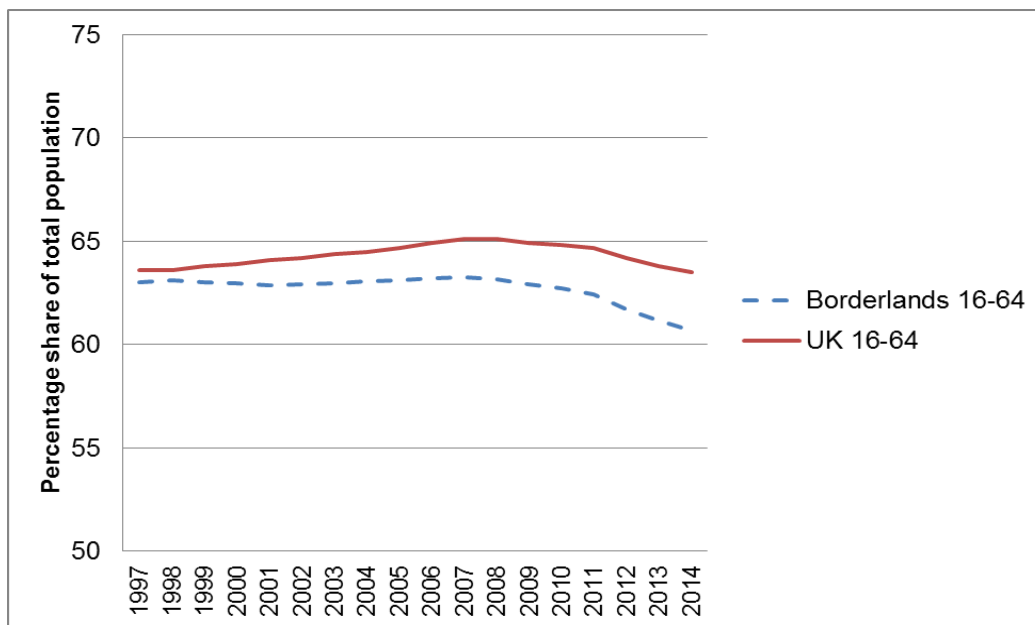


Source: ONS mid-year population estimates accessed via NOMIS

4.6. Perhaps more significantly, Figure 9 shows that the proportion of Working Age Population (i.e. those aged 16-64) was relatively static between the 1990s and mid-

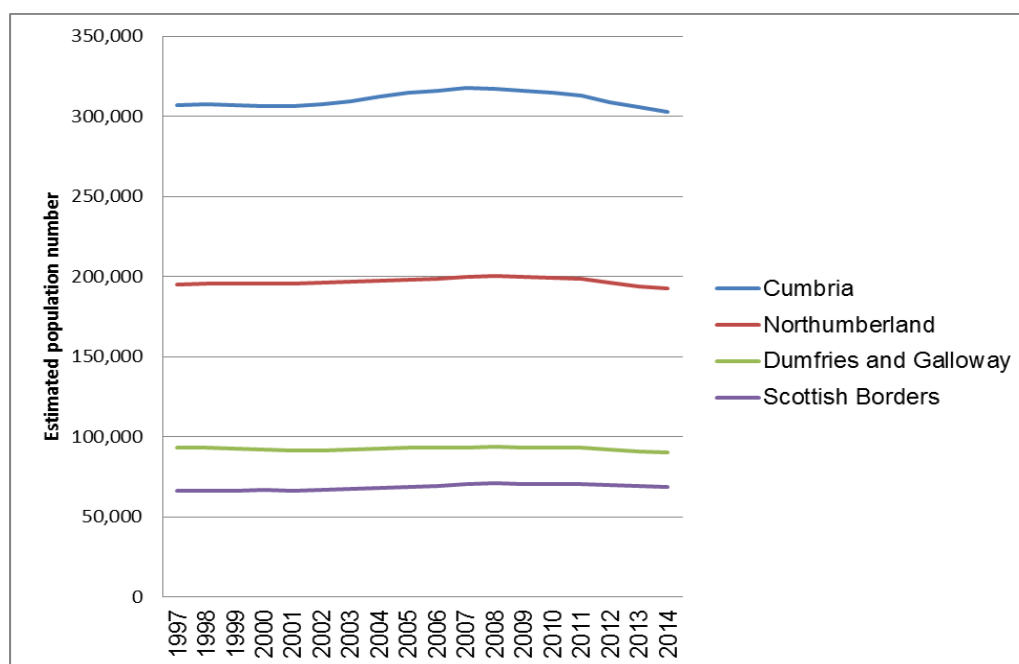
2000s, and has been in relative decline since 2006-7. Figure 10 also shows, however, that all four territories have begun to experience a progressive *absolute* decline in numbers of Working Age Population over the period since 2008/9.

Figure 9: Change in Proportion of People of Working Age 1997-2014



Source: ONS mid-year population estimates accessed via NOMIS

Figure 10: Change in Number of People of Working Age 1997-2014



Source: ONS mid-year population estimates accessed via NOMIS

Rural Deprivation in the Borderlands

4.7. It is widely recognised that official statistics on deprivation do not reflect many of the disadvantages experienced in rural areas. Given the dispersed nature of rural populations, an area-based approach to measuring poverty and deprivation - on the basis of local authorities or council wards - may miss significant numbers of people who experience deprivation but do not live in 'deprived' areas. The Scottish Index of Multiple Deprivation (SIMD) 2012, and the Index of Multiple Deprivation in England (IMD) 2015, try to address this issue by enabling disaggregation of data down to smaller 'data zones' (DZs) and 'local super-output areas' (LSOAs) respectively.

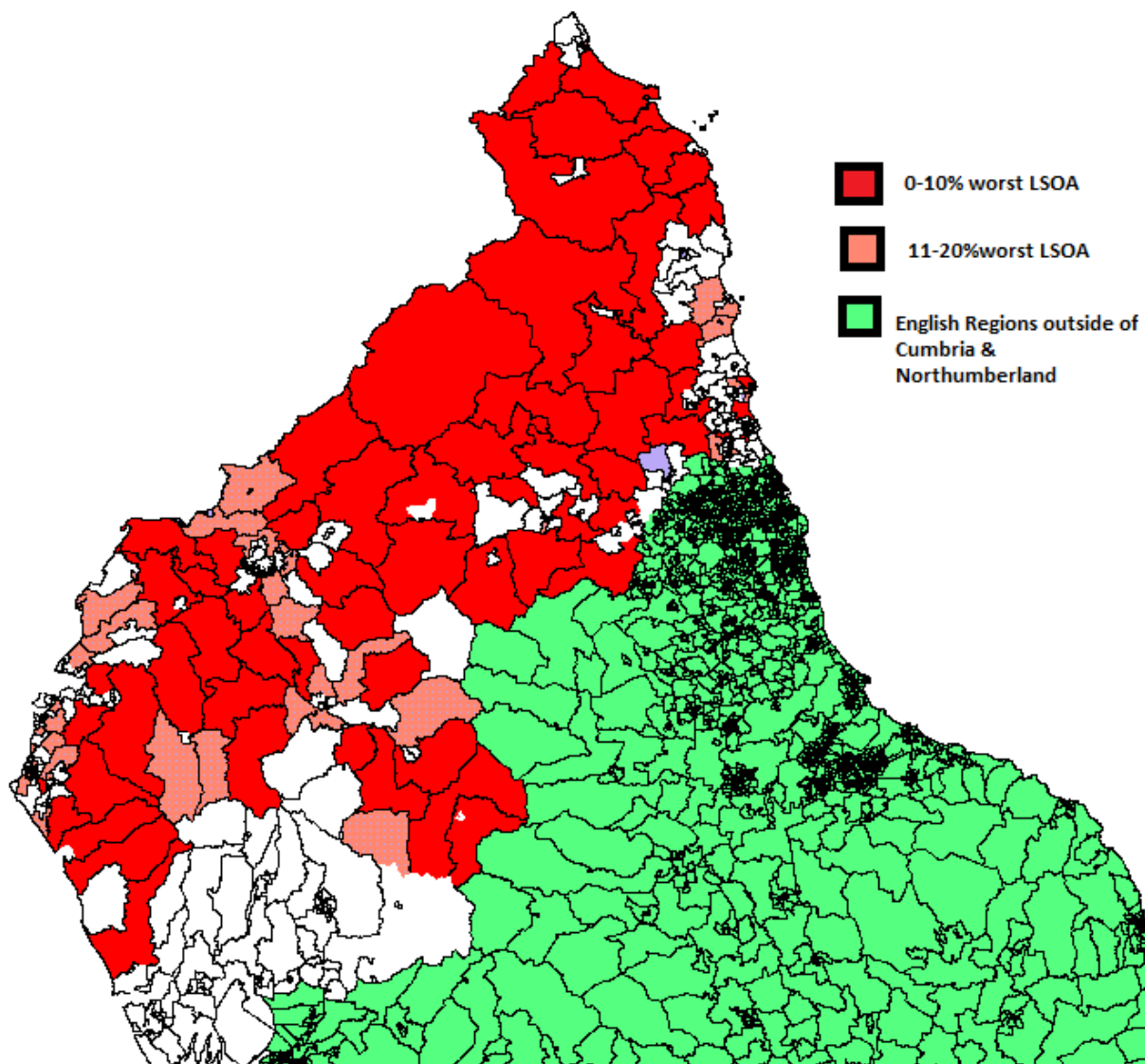
4.8. *North of the border:* the 2012 SIMD was constructed by combining seven domain scores using the following weights: Income (28%); Employment (28%); Health (14%); Education (14%); Geographic access (9%); crime (5%); and Housing (2%). In relation to the 2 local council areas, the SIMD

- Identified 16 of Dumfries and Galloway's 193 datazones as being within the top quintile (20% most deprived) in Scotland. 8 of these are located in Dumfries, 4 in Stranraer, 4 in Upper Nithsdale and 1 in Annan.(Crichton Institute and Dumfries and Galloway Council, 2015)
- Identified that Scottish Borders had 5 (or 0.5%) of Scotland's 'most-deprived 15%' data zones. The most deprived data zones in Scottish Borders are in Hawick and Galashiels. Data also indicated that the more deprived areas in Scottish Borders were no better than they were in 2009 and have steadily got worse since the SIMD started in 2002 (Strategic Assessment for the Scottish Borders, 2013).

4.9. *South of the border:* in Cumbria and Northumberland, the latest (2015) English Indices of Deprivation provides data (under the 'Barriers to Housing and Services' domain, which is a reliable way of capturing 'rural' deprivation) that illustrates where LSOAs are in the lowest two deciles - where 1 is the most deprived 10% of the LSOAs (Figure 11).

While these studies reveal that a number of rural communities in the Borderlands are comparatively wealthy, there are still rural areas adjoining the Anglo-Scottish border that exhibit relatively high levels of socio-economic deprivation – a problem that seems to persist over time.

Figure 11: Barriers to housing and services domain in Cumbria and Northumberland



Source: English Indices of Deprivation 2015

5. ALIGNMENT OF CURRENT STRATEGIES FOR THE BORDERLANDS

5.1. The purpose of this section is to review, and seek to align, the contents of the most pertinent local economic strategies affecting the territories covered by the strategic authorities adjacent to the Anglo-Scottish Border.

Specifically, the analysis focuses on the two Strategic Authorities in Scotland (Dumfries & Galloway and Scottish Borders) as well as those on the English side of the Border (Cumbria and Northumberland).

Given the geographical significance of the city of Carlisle within the Borderlands, the strategy review also includes the economic issues identified in the Economic Review of Carlisle (June 2015).

The key documents are as follows:

- *Scottish Borders Economic Profile* (June 2013) and *Economic Strategy 2023* (June 2013)
- *Dumfries & Galloway Regional Economic Strategy 2015-2020* and *Baseline Study and Regional Economic Profile 2014-2020*
- *Northumberland Economic Strategy*
- *North East LEP Strategic Economic Plan*
- *“The Four Pronged Attack”: Cumbria Strategic Economic Plan 2014-2024* and *Cumbria LEP EU Structural and Investment Fund Plan* (January 2014)
- *Carlisle Economic Partnership: Economic Review of Carlisle*, June 2015

5.2. The analysis that follows seeks to align the contents of these strategies, in particular focusing on:

- Evidence of shared understanding of the key assets on which to build
- The main challenges faced by the area
- Common policy priorities identified for intervention.

5.3. This is followed by a more detailed examination of the priorities identified for specific sectors – *tourism*, *energy* and *forestry* – as well as the potential for collaboration in development of transport infrastructure and *connectivity*.

Shared Assets in the Borderlands

5.4. The local and regional socio-economic strategy documents relevant to the Borderlands area highlight significant shared assets that form the basis for any actions proposed (see Table 6).

Table 6: Key Assets identified by the Border Authorities

Northumberland Economic Strategy	SB Strategy and Economic Profile	D&G Economic Strategy	Cumbria SEP	Cumbria ESIF	Economic Review Carlisle (key findings) 2015
Natural beauty and outstanding quality of life	Quality of life	Rural landscape and coasts	World class in advanced manufacturing	Global nuclear expertise	Quality of urban and rural environments
Links to Newcastle and Edinburgh	Good rail links via Edinburgh-Newcastle-Carlisle triangle	Natural resources for forestry and renewables	World class in nuclear energy	Diverse economic base	Connectivity provided by M6 corridor, cross-border routes and east west links
Commuting premium	Commuting potential to Edinburgh	Good connectivity in parts of region	Internationally renowned tourism brand	World-leading manufacturing companies	Higher levels of business survival
Kielder forest largest commercial resource in England	High level of business starts and survival	Large number of micro/small businesses	High business survival rates	GVA growth since 2006	Retail core with historic heritage
		HE/FE co-location at Crichton	M6 corridor connectivity	World class tourism destination and stunning natural environment	
		High quality of life (low crime / quality schools)		Natural resources (woodland, water, coastline)	

5.5. These assets can be grouped in seven categories as follows:

5.5.1. Quality of natural landscapes

All strategies refer prominently to the high quality of the natural environment which is shared by the Borderlands territories. The strategies also refer to the National Parks (Lake District and Northumberland) that display unique landscapes. The strategy for Dumfries & Galloway makes particular reference to coastal scenery as well as rural landscapes. Significant areas of the Solway Coast are designated as National

Scenic Areas within Scotland (Nith Estuary, East Stewartry Coast and Fleet Valley), as are upland areas within Scottish Borders (Eildon & Leaderfoot, Upper Tweeddale)³.

5.5.2 Variety of landscapes

Strategies also allude to the *variety* of landscapes present on both sides of the Anglo-Scottish Border including not only the upland areas but also the Solway Estuary, the Machars and Rhinns of Galloway, Lower Tweeddale and the Borders Coast within Scotland⁴. Within England, alongside the two National Parks, both the Solway Estuary and the Northumberland Coast are designated as Areas of Outstanding Natural Beauty (AONB)⁵.

5.5.3. Residential desirability

The Strategy documents make various links between this natural heritage and the quality of life - and residential desirability - of towns and smaller settlements in rural areas. This policy connection is made particularly strongly in the east of the Borderlands where transport connectivity to larger adjacent urban areas creates opportunities for a “commuting premium” associated with proximity to Tyneside (Northumberland) and “commuting potential” to Edinburgh (Scottish Borders).

5.5.4. Landscapes and tourist attractions

Strategies also draw attention to the potential for these natural endowments to become a basis for economic activity. The most prominent of these concerns the development of tourism. This point is made particularly strongly in Cumbria where the Lake District represents a unique international tourism brand that depends on its iconic landscapes and centuries old traditions and associations with famous poets and writers. The Northumberland National Park adjoins the Scottish Border in the Cheviots and stretches south to include the central sections of Hadrian's Wall, particularly the iconic stretch that follows the Great Whin Sill⁶. Rural landscapes and coasts are also noted as major assets for tourism in Dumfries & Galloway and Scottish Borders.

5.5.5. Natural resources

Natural assets are, however, also linked with a variety of other commercial activities that could provide the basis of firm formation and job-creation. These include

³ Scottish Natural Heritage (SNH): National Scenic Areas in Scotland
<http://www.snh.gov.uk/docs/B699724.pdf>

⁴ Scottish Natural Heritage (SNH): The Landscapes of Scotland
<http://www.snh.gov.uk/docs/A736465.pdf>

⁵ Nature England: Landscapes for Life <http://www.landscapesforlife.org.uk/>

⁶ <http://www.northumberlandnationalpark.org.uk/>

prominence given to forestry. Cumbria's European Structural and Investment Funds Plan (ESIF), for instance, refers to the importance of woodland and water resources in the county, while Northumberland Economic Strategy notes that Kielder Forest contains the largest commercial forestry resource in England. Strategies for authorities on both sides of the Anglo-Scottish Border recognise that the natural landscape creates potential for developing renewable energy: in particular, wind power and tidal power.

5.5.6. Transport connectivity

The Borderlands contain several vital communications links between centres of population in England and Scotland and also east-west links between Tyneside Carlisle and Stranraer for ferry connections to Belfast in Northern Ireland. All strategies refer to these transport networks as key assets for economic development. In Cumbria, M6 corridor connectivity is regarded as a key asset that supports important sectors of the economy including logistics and food and drink distribution. Across the Border, the M6 extends into the M74 connection to Glasgow and this link is identified as a key infrastructure asset for Dumfries & Galloway. To the east of the area, strategies for both Scottish Borders and Northumberland recognise the importance of good road and rail links south to Newcastle and north to Edinburgh (A1/East Coast road and rail corridor).

5.5.7. Business resilience

The strategies across the Borderlands also make reference to the distinctive characteristics of businesses in the area. Particular reference is made to the dependence upon small and micro-businesses (SMBs) and their resilience in rural areas. The strategy for Dumfries & Galloway adds to this the high level of self-employment in the Borderlands, levels of which have reportedly increased since 2009. While this may be related to the lack of suitable employment opportunities which generates "forced entrepreneurship", these trends can also be interpreted positively as a sign of community resilience and innovativeness. High business survival rates are also interpreted as a positive feature of the local economy.

Sector Priorities

5.6. Current economic strategy documents identify the sectors that will be prioritised for development. These are summarised in Table 7, and in the Vision Statements outlined in Table 8.

It is unsurprising that two sectors – tourism (or visitor economy) and energy – stand out as significant priorities in all areas. There are different nuances on these priorities, however, that are significant, as will be explored in greater detail later.

Table 7: Sector Priorities identified in Strategies of the Border Authorities

	Cumbria	D&G	Northumberland	Scot Borders
Tourism	X	X	X	X
Energy	X	X	X	X
Food & Drink	X	X		X
Advanced Manufacturing	X		X	
Forestry and timber technologies		X	X	
Creative/digital industries		X		X
Logistics	X			
Knowledge-based services			X	
Textiles				X
Agriculture		X		
Health & social care		X		

5.7. In *Tourism*, the emphases vary partly due to differences in the scale of existing activity. Cumbria, for instance, attracts very large numbers of visitors to the Lake District and there are aspirations to grow the numbers of international visitors, in particular, building on its global brand as a destination. There are also various associations made between tourism and other sectors. In Northumberland, specific connection is made to the links between tourism and the arts and cultural industries. In Dumfries & Galloway and Scottish Borders reference is made to the synergies between tourism, creative industries and food & drink.

5.8. There are also different emphases under *Energy*. In particular, Cumbria is unique in seeking to exploit its global expertise in nuclear energy alongside development of renewables, while Northumberland focuses specifically on further development of its renewable energy sites and specialist facilities. Dumfries & Galloway and Scottish Borders, on the other hand, concentrate on the potential for growth in activities associated with onshore and offshore wind energy.

Table 8: Vision Statements

Cumbria SEP	To be one of the fastest growing economies in the UK
D&G Strategy	by 2020.... More diverse and resilient economy. Appropriately skilled workforce... connected infrastructure.... Inclusive communities
Northumberland Economic Strategy	Deliver a prosperous Northumberland founded on quality local jobs and connected communities
Scot Borders Strategy and Economic Profile	To be amongst the best and most productive economies in Scotland

5.9. While the Borderlands are “rural” in character in terms of settlement size and land-use, the significance of manufacturing for employment is commonly overlooked. Manufacturing employers are very significant in smaller freestanding cities and towns located within rural areas of the UK, and the Borderlands are no exception. Besides food & drink and the engineering activities associated with the energy sector, there is significant employment in advanced manufacturing, textiles and processing of forest

products. There are particular concentrations involving global companies in West Cumbria (e.g. reprocessing of nuclear fuels, nuclear decommissioning) and South-East Northumberland (advanced engineering, healthcare & life sciences). These activities have a major impact on the economic structure of Borderlands as seen in employment and productivity data.

Key Challenges

5.10. Strategy documents all include assessments of the key challenges currently facing their communities (Table 9). Two aspects stand out in all these strategies, namely: the challenges presented by the **ageing of the population**; and the need to improve **GVA performance** - both in terms of growth rate (change in GVA per head) and levels of productivity (GVA per hour/per worker).

5.11. Issues relating to population change are presented as fundamental challenges to the sustainability of rural communities. Reference is made in several strategies to the net loss of younger people due to out-migration. In Dumfries & Galloway and Cumbria, forward projections are used to demonstrate that processes of population change are likely to lead to a fall in the working age population (WAP) which has significant implication for the economy (limited future supply of labour and skills) and also for public services (changes in demand for education and health, in particular).

5.12. Continued ageing of the population is likely to exacerbate existing skills issues. Weaknesses in GVA performance are reflected, in part, in the wage structures across the Borderlands. Wages and salaries tend to be below average and this tends to equate to low levels of qualifications in the working population. The challenge for policymakers is to improve GVA performance by stimulating activities that will create better paid jobs and high level qualifications.

5.13. The strategies all recognise that creating better paid jobs is a key challenge; but there is also recognition that addressing this issue requires interventions to improve the economic, social and physical environment within which businesses operate. In these terms, there is a fair degree of consensus in the strategies that the following represent common barriers to GVA growth across the Borderlands:

- Unreliable and uneven telecommunications and broadband coverage
- Low business start-up rates
- Lack of workers with high level qualifications
- Geographical remoteness
- Structural imbalances in housing provision
- Lack of affordable housing

5.14. In addition, some strategies refer to national and international policy environments that have unintended negative impacts on the Borderlands economy. In particular, there is above-average dependence on public sector employment in a period of austerity. Welfare reform is also likely to have negative impacts on household incomes in many urban and rural areas. In the farm community also, there are threats to farm income arising from CAP Reforms. These arguments are

closely linked with calls for measures to give greater visibility to the Borderlands in national political arenas in both England and Scotland.

Table 9: Key challenges identified by Border Authorities

D&G Strategy	SB Strategy and Economic Profile	Northumberland Economic Strategy	Cumbria SEP	Economic Review Carlisle (key findings) 2015
Below average productivity (GVA per hour) and low wage	Reversal of GVA growth since 2009	Below average growth in GVA	Slow down in GVA growth	Net out-migration of younger people
Lack of high level qualifications	Ageing population	Ageing population	Housing stock	Decline in WAP
Remote rural	Above average with no qualifications	Geographically remote communities	Ageing and projected decline in WAP	Lack of high level qualifications
Lack of visibility in national politics	Low average earnings	Unreliable tele-communications	Unreliable Broadband and phone coverage	Sustaining & growing the retail core
CAP reforms and fall in farm income	Rise in youth unemployment		Low rate of business starts	Relatively low business start rates
Poor broadband coverage				Image of Carlisle to investors and visitors
Declining and ageing population				

Policy Priorities

5.15. Moving from the challenges to policy responses, all four of the strategic authorities have identified priorities for action based on their respective analyses of the causal processes involved (below and Table 10). Here again, there is considerable shared understanding of the steps that need to be taken to address the fundamental challenges of population ageing and below average GVA performance.

5.15.1. Improve digital connectivity

All strategies recognise the significance of investment in digital technology and connectivity for business competitiveness. This includes reference to the need for businesses in the Borderlands to “have cost-effective access to Next Generation Broadband” (Scottish Borders Economic Strategy 2023), and also to benefit from improvements in mobile phone reception and coverage.

5.15.2. Develop transport and business infrastructure

As noted earlier, all authorities in the Borderlands benefit from important national road and rail communications; but there is recognition that these systems need constant upgrading in order to maximise the benefits arising from sectoral shifts and geographical changes in economic activity.

5.15.3. Invest in skills formation

Investment in skills and qualifications is a key area where local partners can work together to meet employer needs. The strategies display a clear consensus that the Borderlands needs to invest in skills and to expand high level skills in particular, in order to provide a basis for better paid employment.

5.15.4. Strengthen business base

All strategies emphasise the need to support businesses, particularly those that have growth potential and those that have potential to generate higher value-added and better-paid full-time employment. Stimulating innovation and new business start-up is also recognised as an important area of policy.

5.15.5. Target existing sector strengths

The Borderlands Strategies recognise the need to focus support on particular sectors. As noted above, all Authorities have identified sector priorities based on their own assessments of current strengths and potential. It is significant to note that all four strategic authorities identify both tourism and energy amongst key growth sectors.

5.15.6. Target specific opportunities and places

Reference is also made in strategies to target particular sites and places that offer opportunities. In Carlisle, there is a focus on the need to “protect the vitality of the City Centre” while in Dumfries and Galloway emphasis is placed on delivery of specific large-scale investment projects including Crichton Campus, the Chapelcross site and Stranraer Waterfront. Similarly, in Northumberland particular mention is made of providing support to successful towns including delivery of the Ashington Investment Plan.

5.15.7. Provide leadership

Finally, the need for coordination and leadership to manage cross-sectoral partnerships is identified as a key contributor to economic development. This is implicit in all strategies under “mode of delivery” but given particularly prominence in Dumfries & Galloway where ‘Leadership’ is identified as one of the six Strategic Objectives.

Table 10: Priorities for Economic Strategies

D&G Strategy	SB Strategy and Economic Profile	Northumberland Economic Strategy	Cumbria SEP	Economic Review Carlisle 2013/2015
More growing businesses	Raising SME competitiveness	Growing sector strengths	Create FT jobs	Expand higher level skills and better paid employment
Develop places	Increase employment	Strengthening business base	Increase GVA and boost growth in GVA	Improve digital connectivity
Better skills and opportunities	Promote low carbon	Enabling inclusive economy	Support plans for 30,000 new homes	Protect vitality of city centre
Develop infrastructure	Grow key sectors	Developing competitive labour force	Raise skills levels	Improve connectivity to West Coast
Deliver large investment projects	Improve connectivity	Delivering infrastructure	Increase visitor expenditure	Stimulate innovation and start-up businesses
Leadership in public, private and third sectors with HE partners	Improve business infrastructure	Supporting successful communities	100% broadband coverage	Promote Carlisle

6. TOURISM IN THE BORDERLANDS

6.1. The significance of tourism for the economies and communities in the Borderlands is strongly reflected in all of their key economic strategies (see Table 11).

6.2. This can be seen, in the first instance, in the descriptions of the key assets for all four strategic authorities that focus on the quality and diversity of landscapes and coasts. It is this natural environment that provides the key resource that sustains both tourism and recreation:

- In Dumfries & Galloway, the strategy notes that the “rural landscape and coasts are major assets for tourism”.
- Scottish Borders emphasise the attractiveness of their “rural towns and areas” for tourism.
- The North-East LEP Strategic Economic Plan comments on the “internationally-renowned heritage sites” including Hadrian’s Wall and Lindisfarne.
- Cumbria ESIF justifiably boasts of its “stunning natural environment” in the “world class tourist destination” of the Lake District.

6.3. Not only does tourism maximise the benefits from key natural assets, such as landscapes, but tourism activity is already a major employer and there is a significant business base upon which to build for the future. The strategies emphasise this point by citing some key statistics:

- *Dumfries & Galloway*: Tourism generates £57 - £68m GVA and an estimated 5,400 jobs
- *Scottish Borders*: Tourism is worth some £176m of expenditure from just over 1.9m tourists and 3.7m day visitors annually
- *Cumbria*: The Lake District receives 38m visitors per year. An estimated 36,000 jobs are dependent on tourism. 33 million visitors in 2012 generated £2.1 bn.
- *Northumberland*: Tourism accounts for 13,200 jobs or 13% of total jobs (2013). The sector has experienced growth in the past 5 years of 18%.

6.4. In keeping with the principles embodied in the “smart specialisation” thesis, tourism clearly stands out in the Borderlands as a sector that “builds on the region’s strengths, competitive advantages and potential for excellence” (European Commission 2012).

6.5. While generally positive about tourism, some strategies note the dilemmas associated with tourism development. All four strategy documents cite the “low wage economy” as a major challenge to improving productivity and this is linked specifically to the fact that “many of the jobs in the region’s key sectors provide low levels of productivity and often seasonal employment” (D&G Regional Economic Strategy 2015-2020, p. 6).

Table 11: Developing Tourism in the Borderlands

Northumberland Economic Strategy / NE LEP SEP	SB Strategy and Economic Profile (EP)	D&G Strategy and Baseline Study (BS)	Cumbria SEP/ ESIF	Economic Review Carlisle (key findings) 2015	
Tourism accounts for 13,200 jobs or 13% of total (2013). Has experienced growth in the past 5 years (+18%) Internationally renowned heritage sites - Hadrian's wall WHS, Lindisfarne (NE SEP)	Tourism is worth some £176m of expenditure from just over 1.9m tourists and 3.7m day visitors annually (EP)	Rural landscape and coasts are major assets for tourism	Lake District receives 38m visitors per year (SEP) Estimated 36,000 jobs dependent on tourism. 33m visitors in 2012 generating £2.1 bn (ESIF)	31% of businesses derive at least part of their income from tourism	
Tourism has impacts on many sectors - retail, culture, events, food, drink, and heritage Coast and rural areas - strong tourism offer (NE SEP)	Estimated that £65m is spent on accommodation and food & drink	Tourism - a sector that provides volume of jobs Lower levels of productivity are often seasonal	Only 8% visitors are from overseas (ESIF)	Tourism revenue of the city in 2013 was estimated at £353m	
Start-ups in creative industries and traditional rural sectors (forestry, crafts)		Tourism generates £57 - £68m GVA and an estimated 5,400 jobs (BS)	Strong local food and drink chain into visitor economy (ESIF)	Tourism sustains around 5,000 jobs in Carlisle	

6.6. On the other hand, all strategies recognise the linkage benefits that exist between the core tourism activities (accommodation, hotels, catering, and visitor attractions) and the spin-off benefits in the wider economy in retailing, food & drink, crafts and creative industries, land-based recreation and outdoor education.

6.7. Tourist activity therefore has a wide reach across sectors as evidenced by the scale of job creation associated with the visitor economy. In Carlisle, for instance, it is estimated that nearly one third of all businesses derive at least part of their revenue from tourism.

Tourism Strategies in the Borderlands

6.8. The four Strategic Authorities that constitute the Borderlands also have current tourism strategies linked to the wider Economic Strategy outlined above. These strategies examine more closely the key assets and opportunities, targets and the barriers to overcome. These strategies are as follows:

- *“Making the dream a reality”: The Tourism Strategy for Cumbria 2008-2018*
- *Dumfries & Galloway Regional Tourism Strategy 2011-2016*
- *Northumberland Destination Management Plan 2015-2020*
- *Scottish Borders Tourism Strategy 2013-2020*

6.9. The key messages in these strategies have been abstracted and presented in Table 12. This comparison reveals a number of themes shared in common:

- Firstly, all the four areas have many features to celebrate and these can be used to promote the whole area. These include reference to iconic Lake District associations with Romantic poets and Beatrix Potter as well as Hadrian’s Wall, the Border Reivers, Northumberland National Park and coast, Holy Island, Gretna Green, Galloway Forest and heritage sites in the Border towns.
- Secondly, there are also aspects of tourism that are already well developed across the whole Borderlands including a wide range of outdoor activities (walking, climbing, cycling, country sports and equestrian).
- Thirdly, there are considerable overlaps also in relation to aspirations to improve and diversify the range of the visitor experience. Examples include culinary improvements and exploitation of dining opportunities particularly linked to local food and drink, maximising the impacts of themed events (horse trials, music festivals, film festivals, arts and craft events) as well as investment to raise the overall quality of accommodation and improve visitor experiences. Alongside these, there is reference to new types of experiences including development of outdoor adventure and experience of “wilderness”, “dark skies” experiences, and “nature” tourism.

6.10. The strategies also highlight the barriers to growth for the sector and the factors that might enable sustainable growth in future. Prominent among these are improvements in customer service skills, more effective management of market intelligence, and better use of mobile technology to enhance visitor experience. It is argued that these improvements are vital just to maintain present market share in competition with other UK destinations and alternative holiday experiences in Europe. There is also a need to spread the impact of tourism more evenly over these areas to avoid congestion at key sites and also to spread the effects over the seasons.

Table 12: Tourism Strategic Priorities in the Borderlands

Cumbria	D&G	Northumberland	Scottish Borders
<i>"Making the dream a reality: The Tourism Strategy for Cumbria 2008-2018".</i>	<i>Dumfries & Galloway Regional Tourism Strategy and Action Plan 2011-2016.</i>	<i>Northumberland Destination Management Plan 2015-2020.</i>	<i>"Scottish Borders Tourism Strategy 2013-2020," Scottish Borders Tourism Partnership, April 2013.</i>
Exploit the rich heritage- Hadrian's Wall, Beatrix Potter, Romantic poets, Border Reivers.	Promote key brands and themes e.g. 7stanes; Gretna Green; Galloway Forest Park; Dark Skies; Biosphere.	Exploit natural beauty of the Northumberland National Park, Coast, North Pennines and AONB.	Optimise the benefits to be gained from scenic landscape and wildlife e.g. develop nature packages.
New growth marketing strategy to promote "Wilderness refined", experiential tourism, outdoor adventure.	Extend dwell time, increase spend opportunities and ensure quality of visitor experience.	International Dark Sky Park. Promote cycling, walking and nature-based tourism.	Create transport links and routes and develop sustainable links e.g. Borders Rail link; cycle/walking infrastructure.
Build on successful events like the Lowther Horse Trials, Kendal Mountain Film Festival, Blues Festival to provide year-round programme.	Enhance skills base of tourism workforce... encourage personal investment in the tourism sector.	Promote a few authentic and inspirational signature events plus a wide range of smaller events.	Improve the quality and profile of their business tourism assets e.g. mountain biking, walking, golf, fishing and country sports, diving, equestrian.
Use new web and mobile technology to provide visitor information for increasingly 'wireless-using consumers'.	Optimise the mutual benefits for community and industry through tourism.	Develop web presence - Visitnorthumberland.com had more than one million unique users to its web-site in 2014.	Maximise opportunities to be gained from improving destination profile and use events as a vehicle for change.
..'build on this reputation for good food....Ensure it is endorsed with Michelin stars and similar awards. Promote fabulous dining, pubs, cafes and farmers' markets'.	Improve access to and circulation of market intelligence, to create and maintain opportunities for better collaboration and cohesion.	Cultural heritage of castles and historical attractions including Hadrian's Wall and Holy Island.	Ensure that the visitor dining offer capitalises on the region's own food and drink and ensure that their hospitality skills are of international standard.
Give opportunities to our artists and crafts people to present their work.	Ensure collaboration, joint working and advocacy investment in tourism.		Develop and improve the vibrancy of key settlements within The Borders, protecting the built and natural heritage of towns and villages.

7. ENERGY IN THE BORDERLANDS

7.1. The energy sector is identified in all four strategic authorities as a sector priority across the Borderlands (Table 13). It is self-evidently a key priority for Cumbria which hosts significant expertise in the nuclear sector at Sellafield associated not only with waste management, reprocessing and decommissioning activities but also with the economic benefits and challenges associated with nuclear new build in West Cumbria. As noted in the Cumbria ESIF, the industry employs 9,700 people directly with thousands more in the supply chain and accounts for an estimated 4.3% of jobs in Cumbria. There is also a legacy of nuclear power production at Chapelcross in Dumfries & Galloway where the transition from the nuclear industry following decommissioning is being facilitated by the “Beyond Chapelcross” project⁷.

Table 13: Significance of Energy in Economic Strategies in the Borderlands

Northumberland Economic Strategy	NE LEP SEP	SB Strategy and Economic Profile	D&G Strategy	Cumbria SEP / ESIF
Mining and quarrying has expanded in past 5 years (+67%) but from relatively low base	Rural area - colleges specialising in agriculture, renewable energy technologies and rural business.	Renewables listed as a priority sector	Natural resources provide opportunities in ...'renewable energy'	Nuclear expertise at Sellafield and UK Nuclear Centre of Excellence (SEP) 9,700 employees in energy sector including nuclear. Thousands more in supply chain. 4.3% of Cumbrian jobs (ESIF)
Energy, especially oil & gas and renewables including offshore wind, subsea engineering	The National Renewable Energy Centre (NAREC), based in Blyth, open access testing and research facilities renewable energy industries	Low carbon economy identified as an priority area for skills development	"..particularly on and off-shore wind energy to maximise community benefit"	Generation of low carbon energy - off-shore, wind and oil/gas sub-sea technology (SEP) Clean technology energy - approx 400 businesses with 8,100 employees in 2011-12 (ESIF)
Coal gasification in future	Northumberland College Advanced Manufacturing Centre - advanced manufacturing and wind turbine energy.		Renewables - potential for higher paid jobs and high level skills	Strategic link from Workington to Sellafield on coastal rail (SEP)

⁷ Beyond Chapelcross: Transition Support Project, 14 June 2011

7.2. While the management of the nuclear legacy and future potential in nuclear power are of huge importance for Cumbria, interest in development opportunities associated with renewable energy is much more widespread across the Borderlands. There are references in local economic strategies both to the development of renewable technologies within establishments with research capacity (Colleges, Universities, NAREC in Blyth, Northumberland; plans for a Low-Carbon R&D and Innovation Centre of Excellence in Cumbria), as well as spin-off economic benefits derived from generation of low-carbon energy - in particular - from off-shore and on-shore wind power.

7.3. These strategic priorities are underpinned by numerous sector reviews that include chapters on renewables as well as more detailed studies that focus specifically on the key opportunities and barriers to the development of renewable energy schemes in the Borderlands. Six such studies highlight both the opportunities and the barriers, and the issues that arise from realising economic development from renewables.

- *Cumbria Renewable Energy Capacity and Deployment Study (SQW Final Report to Cumbria County Council, August 2011)*
- *Cumbria LEP Business Plan Evidence Base (2012)*
- *Dumfries and Galloway Energy Action Plan (2013)*
- *Scottish Enterprise. M74 Economic Growth Study: Phase 4 Report (2015)*
- *Northumberland CC. Renewables, low carbon energy and energy efficiency study (2011)*
- *Scottish Borders Council. Community Renewables in the Scottish Borders, (2009).*

7.4. These studies identify the current capacity and shared potential for expansion of activities associated with renewable energy across the Borderlands (see Table 14). A number of key issues are highlighted:

7.4.1. Onshore wind power

These reports in particular contain evidence of the existing capacity in onshore wind power. In Cumbria for instance, it was estimated as early as 2009 that onshore commercial wind power potential capacity amounted to 2,885 MW. More recently, Scottish Enterprise (2015) have estimated that there is 569 MW operational or under construction on the M74 Corridor alone (11.5% Scottish Capacity) with considerably more in adjacent areas across the Borderlands. In Northumberland, it was estimated in 2011 that the major wind farms at Kirkheaton and Blyth Harbour contributed 5MW capacity while a wide variety of smaller scale schemes amounted to at least 290 MW.

The reviews note that across the Borderlands the potential for wind power is not limited by site potential. Scottish Borders, for instance, indicate that in terms of

physical attributes alone there is an abundance of suitable sites that could be used to capture wind power. However, there is widespread recognition of the challenges associated with landscape and planning issues and the views of communities and local and regional stakeholders.

Several of these studies make explicit reference to the fact that achieving consent for onshore wind developments, particularly larger schemes, is becoming more difficult and this has contributed to increasing uncertainty affecting land and wind farm developers. It would appear that there are fewer barriers to overcome for small scale “micro” schemes of which there are many examples in the Borderlands. Across Dumfries & Galloway, for instance, recent reviews identify 204 small scale onshore wind projects distributed over the authority area.

Table 14: Potential for Renewable Energy in Borderlands

Cumbria Renewable Energy Capacity and Deployment Study (2011)	D&G Renewables Energy Action Plan (2013)	Renewables, low carbon energy and energy efficiency study (2011)	Cumbria LEP Business Plan Evidence base (2012)	M74 Economic Growth Study (2015)	Community renewables in the Scottish Borders (2009)
Total onshore potential capacity in Cumbria assessed at 4,542MW most of this (2,885MW) is commercial onshore wind power.	D&G is already active or has potential in many aspects of renewables.	Major projects already operational including Egger plant (biomass 50 MW), major wind farms at Kirkheaton and Blyth Harbour (5 MW).	Cumbria possesses geographical advantages estuarine tidal power, offshore and onshore wind power, use of biomass and anaerobic digestion.	..region has strong historic links to... hydro power legacy, the nuclear plant at Chapelcross to the first Scottish offshore wind project in the Solway Firth.	Wind has good prospects and there is an abundance of suitable sites.
Micro-generation is exciting opportunity - in 2011, there were 26 small scale hydro - operational and consented (4.11MW)	Estimated 334 workers directly employed in renewables sector.	Wide variety of small scale schemes in wind (already 290MW in 2011) biomass, hydro, landfill gas and solar typically serving specific buildings or developments.	opportunities to apply the technological expertise of Cumbrian businesses in the development and manufacture of components for hydrogen fuel technologies and photonics	The study area currently hosts a significant level of renewable electricity generation from onshore wind production.	Hydro could be significant given the historic associations with water power. Re-connect Borders Towns with industrial heritage associated with rivers.

2011 biomass consented - 12 schemes including Iggesund.	Existing small scale or "micro" schemes include hydro (23), CHP (29), onshore wind (204)	Technical potential estimated to be significant for wind power in particular	...expansion of local [clean tech] R&D capability through the UK National Nuclear Laboratory and investment in the Dalton Institute's facility	569MW are currently operational or under construction within M74 corridor (11.5% of total Scottish onshore wind capacity).	Private installation of solar panels has raised awareness of this energy source.
2011 Commercial onshore wind operational and under construction - 22 schemes 142.2MW	Larger scale projects include wind installations (10 sites operational), hydro (6) and bio-mass (1).	9 wind turbines at Blyth Harbour (2.7MW) and 3 at Kirkheaton (1.8 MW) in 2011	Anaerobic digestion on farms and use of food wastes and biomass has potential... less than 1,000 jobs now but.. could rise to over 4,000 by 2020.	The Solway Firth provides a significant opportunity for tidal energy capture....one of the largest potentials in the UK for tidal range	Communities are generally keen to reduce impacts on the environment.
	There is broad consensus that jobs in the renewable sector are a priority for communities			...studies have estimated the potential capacity of a tidal barrage to be more than 300MW	Borders has good power connectivity in terms of physical infrastructure and power lines.
	D&G Renewable Energy Partnership provides a basis for leadership and development.				Scottish Borders Energy Forum provides a basis for discussion and debate.

7.4.2. Tidal power

A second area of discussion concerns the development of tidal power. The case for tidal power is made most strongly in the M7 Growth Study which suggests that "a tidal project in the Solway Firth would sit in a unique context that creates the potential for a place-specific, yet internationally recognised, renewable energy project". It provides a strong enabling context: its location creates potential to form powerful partnerships between communities, private enterprise and delivery bodies on both sides of the Firth (M74 Growth Study). The document claims that a tidal barrage could have capacity to generate more than 300MW due to the large tidal range that characterises the Solway Estuary. This view is mirrored by other

documents including the Cumbria LEP's which refers to the fact that "Cumbria possesses geographical advantagesassociated with estuarine tidal power". A key to such development would be to demonstrate community benefit and address concerns over impacts on the estuarine environment.

7.4.3. Hydro Power

Hydro power is also noted as an area of renewable technology that has growth potential. Dumfries & Galloway noted 23 micro hydro schemes in operation in 2013, and in Cumbria, during 2011, there were reported to be 26 small-scale hydro schemes operational or consented, with a combined output of 4.1MW. Scottish Borders Council note the potential of this technology for the Borderlands, "given the historic associations with water power" and the potential for reconnecting the borders towns with an authentic industrial heritage associated with rivers.

7.4.4. Biomass and anaerobic digestion

Several strategy documents refer to biomass and anaerobic digestion as power sources. Major projects are already in operation including the Iggesund paperboard factory in Workington which operates a combined heat and power biomass plant (150MW) and the Egger biomass plant (50MW) in Hexham. There are, however, also many micro schemes (including 29 CHP projects) across Dumfries & Galloway.

7.4.5 Low Carbon technologies and R&D

While there is extensive reference to the potential for *renewable energy production* across the Borderlands, and the geographic advantages that characterise the area, several strategies make reference to the capacity to develop *new low carbon technologies and products*. This clearly requires a significant local knowledge base, access to test facilities and in some instances to sites used to develop prototypes in the field. It is widely recognised that maximising the socio-economic benefit of investment in renewables depends significantly on nurturing higher paid employment and higher level skills associated with R&D.

Several strategies seek to build on existing capacity for R&D in the low carbon and environmental goods and services sector (LCEGS):

- In South-East Northumberland, the National Renewable Energy Centre (NAREC) based at Blyth offers open access testing and research facilities dedicated to renewable energy (North East LEP Strategic Economic Plan). Northumberland College has also developed specialist knowledge of renewable energy technologies associated with agriculture and rural business and also hosts the Advanced Manufacturing Centre specialising in wind turbine energy.
- In West Cumbria, there has been recent expansion of local "clean tech" R&D capability through the National Nuclear Laboratory and investment in the Dalton Institute at Westlakes Science Park near Whitehaven (Cumbria LEP Strategic Economic Plan and West Cumbria Energy Coast Masterplan). This includes development and manufacture of components for hydrogen fuel technologies and photonics.

- In Dumfries and Galloway, a recent report highlighted the potential for development of R&D associated with re-use of skills from Chapelcross. The M74 Economic Growth Study (2015) notes that the skills developed from Chapelcross could be transferred to developing expertise in electricity storage in the region. Moreover, there is also the possibility for utilising redundant areas of the Chapelcross site for developing a new storage site, potentially utilising existing assets such as the local grid connection.

7.5. The strategies present a realistic viewpoint on the potential for future development in renewables. While opportunities are itemised, there is also recognition of the socio-economic and environmental limits and technical and financial barriers to exploitation (Table 15).

It has been noted above that there are barriers to growth affecting larger onshore wind power developments arising from community responses and planning and landscape considerations. There is, however, a shared understanding across the Borderlands of the barriers that exist to further development of smaller scale community-based projects. These micro projects may present fewer concerns with regard to community reactions and landscape impacts, but a range of other factors create limitations.

Several strategy documents note:

- The lack of availability of appropriate sources of funding for micro projects, particularly those that are experimental where technologies are still in development.
- That the relevant technical and organisational skills required to develop micro-energy projects at the community level, are in short supply.
- That Grid connection can pose a financial barrier
- How such schemes may also meet problems associated with the lack of local specialist suppliers with relevant business and technical experience in the field.

Table 15: Barriers to Growth in Renewable Energy in the Borderlands

Cumbria Renewable Energy Capacity and Deployment Study	D&G Renewables Energy Action Plan 2013	Renewables, low carbon energy and energy efficiency study 2011	Cumbria LEP Business Plan Evidence base 2012	Community renewables in the Scottish Borders 2009.
Realistic onshore deployment is lower - 606MW by 2030 - having considered landscape and planning capacity.	Onshore wind becoming more difficult to get consent for large schemes.	Uncertain availability of land and developer interests in wind turbines.	There is inability to access funds for investment, despite availability of good returns e.g. through fuel saving. This is due in part to banks wanting short term returns, while renewables need investment over 15 years.	Awareness of potential for renewable energy has been lower compared to Highlands and Islands.
Limits on fuel supply is an issue for biomass - needs to be renewable sources.	Wave/tidal power has long term potential but will depend on feasibility and assessments.	Need to consult NEDL about Grid connection and capacity.	Grid connection is a key barrier. It is often too expensive to connect to the grid.	Community support structure and funding for such projects is less well developed than in Highlands and Islands.
Some micro-generation technologies are not yet commercially viable.		Impacts of wind turbines on landscape and views of communities and stakeholders.	There are increasing issues around lack of support from local communities, particularly with regard to wind energy.	
Value and quality of landscapes limits potential use for onshore renewable schemes.		Availability of fuel for larger scale biomass schemes.		
Supply chain issues - possible need for skills development in hydropower and biomass installation.		Availability of funding for micro-generation.		

8. FORESTRY IN THE BORDERLANDS

8.1 The Economic Strategies relevant to the five Authorities across the Borderlands all make some reference forestry and woodland (Table 16). There is, in particular, widespread comment on forestry as a potential resource for economic activity not only in terms of timber production but also through adding value to timber products, the development of timber technologies and the use of woodland as an input to biomass energy.

8.2. There are also references to the potential linkages between forestry and tourism and recreation through strategies to encourage “multi-purpose land use”. Some strategies recognise that forestry has not been a major growth industry in the recent past and may have declined in some areas. However, there is also emphasis on the scale of this resource in the Borderlands and its development potential.

Table 16: Forestry and Economic Strategies in the Borderlands

Northumberland Economic Strategy	SB Strategy and Economic Profile (EP)	D&G Strategy	Cumbria SEP	Cumbria ESIF
Part of land economy which has suffered decline in past 5 years (-17%).	Economy of the Borders ...a hub of developing technologies around traditional sectors of textiles, forestry, and agriculture.	Natural resources provide opportunities in forestry.	Forestry identified as a source of low-carbon energy.	Extensive woodland resources biomass energy.
Forest products for energy - low carbon growth.	To encourage integrated and multi-purpose land-use.	There is an opportunity to grow ...sectors and move them further up the value chain: Forest and timber technologies.	Encourage growth of forestry industry - forestry and timber programme.	10% of Cumbria is woodland. 30% of this is under Forestry Commission. Also, over 18k ha of "under-managed" woodland.

8.3. There are a number of recent documents and strategies across the Borderlands that look specifically at forestry and woodland and the contents of these are summarised in Table 17. These documents highlight the significance of forests and woodlands as resources.

Table 17: Forestry and Woodland Plans and Strategies in the Borderlands

Cumbria and the Lake District Trees, Woodlands and Forestry Strategy 2013	D&G Forestry and woodland plan 2014	Roots to Prosperity: Action plan for the growth of forestry sector in Northern England	Forestry Commission Scotland. Strategic Plans 2014-17 for Dumfries & Borders and Galloway Districts	Forestry Commission Scotland: Scottish Forestry Strategy progress 2014-15 and implementation 2015-18
Cumbria, including the Lake District, has a woodland cover of 58,500ha, nearly 9% of the county.	D&G is one of the most wooded regions in Scotland with just over 211,000 hectares of existing forest and woodland cover approximately 31% of the total area.	More than 2,500 people employed in primary processing of timber products in Northern England. Northern England has 130,289 ha of conifers (41% of national resource).	District priorities: Healthy - good condition; productive - economic benefits from the land: treasured - multi-purpose use; accessible - open to all; cared for - respecting landscapes; good value - efficient delivery of public value.	South of Scotland contains about 25% of Scotland's total forest resource. Timber processing is a significant employer in the region, employing approximately 3,445 people in the region. ...present significant opportunities for the further development of wood fuel as an energy source.
Recreation: Centre Parcs (visitors 500,000; spend £140m & 400 jobs) Grizedale; (visitors 195,000; spend £12.1m & jobs 42) Whinlatter; (visitors 220,000; spend £10.7m & jobs 32),	D&G produces around 30% of Scotland's annual timber harvest, also has a major processing capacity through two large sawmills at Lockerbie and Dalbeattie plus a range of smaller facilities.	Investment of £23m could unlock in excess of 1,000 jobs and £37.5m GVA,	Quality timber production is a key objective: D&B District accounts for 16% of Forestry Commission annual timber production; Galloway District is "the biggest single producer of timber in Britain",	South Scotland's woodland resource also creates significant opportunities to develop the tourism and leisure sectors, including activity sports, wildlife and health. For example, the 7Stanes project continues its aim to widen the appeal of mountain biking .
Strategic aims: Expand market for wood and wood products; enhance biodiversity through appropriate management and woodland expansion; Increase range and diversity of tourism; improve woodland resilience.	Contributed to tourism and recreation through forest parks, the 7Stanes mountain bike routes, the Galloway Forest Dark Sky Park, forest trails, bridleways and other facilities that offer a diverse range of opportunities for outdoor activity.	Priority actions: Capital Investment; skills & Knowledge; information, Advice & Guidance; Governance & Regulatory Environment.	D&B aim to provide at least 3m cubic metres of softwood annually invest in high quality visitor facilities and restore areas of ancient woodland sites. They seek to maintain timber production and develop birch and aspen for wood fuel.	Explore regional potential for more value adding within the processing... Continue to support opportunities for greater engagement with communities in woodland management and ownership.

8.4. The Forestry Commission (England) has recently worked with partners to develop an action plan for the forestry sector, *Routes to Prosperity*. Local authorities involved included Northumberland and Cumbria. While this strategy covers a wide area of northern England, the territories close to the Anglo-Scottish Border have special significance:

- Kielder Forest, in particular, is the largest contiguous forest area in England and one of the largest managed forests in Europe covering an area of 60,000 hectares.
- In Cumbria there also are major forest areas at Grizedale and Whinlatter.
- Within Southern Scotland, the forest resources are equally impressive. Forestry Commission Scotland notes that the South of Scotland region contains around 25% of all Scotland's forest resource.
- The Dumfries & Galloway District is described as one of the most wooded regions in Scotland with just over 211,000 hectares of existing forest and woodland and covering 31% of land area. In addition, the separate Galloway District is described as the biggest single producer of timber in Britain.

8.5. The existing scale of economic activity associated directly with forestry is also highlighted. Forestry Commission (Scotland) estimates that forestry activity including timber processing employs around 3,445 people in the region. The "Roots to Prosperity" strategy states that there are more than 2,500 people employed in primary processing of timber products in Northern England. These economic impacts, however, extend into other sectors, including, in particular, the impact of tourism linked to investment in facilities that support recreational activities within forest areas.

The Cumbria Strategy, for instance, notes the visitor numbers to Grizedale (195,000) and Whinlatter (220,000) as well as estimates of the spend associated with these visits (£12.1m and £10.7m respectively). The success of the 7Stanes mountain biking project and Dark Sky forest trails in Galloway are also highlighted in the D&G Forestry and Woodland Plan (2014), and cited as an exemplar project by Forestry Commission Scotland.

8.6. Emphases vary, but there is a considerable overlap in the strategic objectives that have relevance to economic development for this sector across the Borderlands.

- All strategies seek to maintain or expand existing markets for wood and wood products, including attempts to add value to products and diversify into new areas such as wood fuel as an energy source. Expanding the range and diversity of tourism activities associated with forested areas is also a shared aspiration.
- The "Roots to Prosperity" strategy makes explicit mention of the value of investing in skills and knowledge in this sector. This suggests there might be important areas of shared learning that could be significant for mutual benefit. In particular, lessons could be shared on improving the management of diversity of woodlands, promoting woodland resilience, coping with disease threats to particular species as well as sharing experiences of new timber production for wood fuel.

9. CONNECTIVITY IN THE BORDERLANDS

9.1. While the Borderlands Authorities share many priorities in key sectors related to energy, forestry and tourism, there is also much common interest in enhancing connectivity both within the Borderlands and with neighbouring regions in Scotland, England, and beyond (Table 18). There is common emphasis on the need for investment in basic infrastructure to support key sector developments.

9.2. The Regional Strategies and other supporting documents draw attention to the major themes under the heading of “connectivity”. Prominence is given to the significance of major road networks for current successes. In Cumbria, for instance, it is argued that the success of the Stobart logistics business thrives in part due to the road connectivity provided by the M6 corridor. The economic Review of Carlisle notes that the city “has been, and remains today, an important communications centre”. The Dumfries & Galloway strategy notes that parts of their region have good links to strategic transport networks with links to Glasgow and Edinburgh via the M74. Rail connectivity is also celebrated. There are “excellent inter-regional links” provided by the West Coast Main Line in Cumbria.

9.3. The significance of connectivity across the Border is also recognised explicitly in the strategy for Cumbria and the Economic Review for Carlisle. Major routes that radiate northwards from Carlisle cut across the Anglo-Scottish Border (A75 to Dumfries, M6/A74 (M) to Glasgow and Edinburgh, A7 to the Borders towns). In Northumberland inter-regional connectivity is considered a key asset with good external connections via national and international road, rail, sea and air routes.

9.4. While many transport corridors are viewed as key assets and regional strengths, the strategies also draw attention to a number of deficits in the Borderlands. This includes attention to improving east-west connectivity on both sides of the Anglo-Scottish Border, in particular in Cumbria and Dumfries & Galloway. There is specific reference also to the need to improve connectivity of free-standing market towns across Northumberland and in the Scottish Borders.

9.5. Optimism currently surrounds the prospects for economic development associated with the opening of the new Borders railway. However, a need is recognised in Northumberland for improved rail connectivity between South-East Northumberland and Tyneside and dualling the A1 (M) through the County to the Scottish Border and beyond to Edinburgh.

9.6. The strategies also stress the need for constant improvement in digital connectivity. This is viewed as essential for growth and diversification of local economies, particularly across rural areas where businesses can be constrained by slow or unreliable telecommunications (Northumberland Economic Strategy, 2014). Superfast Broadband connection appears to be progressing fairly well but coverage needs to be completed, while mobile phone reception is still described as “patchy”.

Table 18: Connectivity in the Borderlands Economic Strategies

Northumberland Economic Strategy / NE LEP	SB Strategy and Economic Profile	D&G Strategy	Cumbria SEP / ESIF	Economic Review Carlisle (key findings) 2015
Dualling the A1 and re-opening the Ashington, Blyth and Tyne Line to passenger services.	Ensure that businesses have cost effective access to next generation broadband.	Parts of region have good links to the strategic transport network.	Logistics thriving on the M6 corridor - Eddie Stobart. M6 strategic connectivity is key strength (ESIF).	Carlisle has been, and remains today, an important communications centre.
Increase connectivity to Tyneside - Ashington, Blyth and Tyne Rail Scheme (NE LEP)	Ensure that businesses have a good road network and other key infrastructure	Links to Glasgow and Edinburgh via M74. West to ferry ports and N Ireland.	Excellent inter-regional links provided by West Coast mainline	Major routes that radiate northwards from Carlisle cut across the Anglo-Scottish Border (A74, M74, A75, A7)
Roll-out of superfast broadband.	Maximise the economic development potential of the Borders Railway.	Invest in the region's infrastructure, both digital and physical. Invest in ICT infrastructure.	East-west links are a weakness - M6 to West Coast (ESIF)	Concept of "economic corridors" is integral to evolving collaboration with policymakers in neighbouring authorities.
Growth network - improve connectivity of market towns - Hexham, Prudhoe, Berwick, Alnwick, Amble and Haltwhistle.		Invest in Chapelcross site, M74 Corridor, Stranraer Waterfront, Dumfries Learning Town.	Cross border opportunities building on connectivity with SW Scotland.	

9.7. These various themes are amplified in the current Local Transport Plans for the four strategic Authorities (Table 19). These documents are intended to provide a framework for investment priorities for transport over extended periods of time. The contents highlight many of the major themes identified above, in particular:

- Upgrade to the A1(M) to dual carriageway in Northumberland
- Further improvements to the A69(T) link from Tyneside to Carlisle
- Investment in passenger rail services in South-East Northumberland
- Improved transport links through Dumfries & Galloway
- Further development of the newly constructed Borders Rail Service
- Improve strategic road links within Cumbria (particularly east-west)

Table 19: Local Transport Plans across the Borderlands

D&G	Scottish Borders	Northumberland	Cumbria
Improve transport links within D&G and provide fast, safe and reliable journey opportunities to significant markets.	The improvement of strategic routes to market.	Upgrading the A1 to dual carriageway standard.	The maintenance of Cumbria's roads, pavements, paths and cycle ways.
Contribute to improved economic growth and social inclusion whilst minimising the environmental impacts of transport.	Promote and develop the newly constructed Borders Rail Service.	Constructing the Morpeth Northern Bypass.	Making sure our strategic road links are able to support the Cumbrian economy.
Support the national transport target of road traffic stabilisation;	Develop strategic cycling and walking network throughout the Scottish Borders	Further improvements to the A19(T) junctions.	Maximising the benefits of the county rail network.
Add value to the broader Scottish economy and underpin increased sustainable national economic growth;	Promotion of improvements to the public transport network	Seeking further improvements to the A69 (T).	Use smartcard technology to reduce barriers to people using passenger transport
Assist in getting visitors/tourists to the region from other parts of Scotland, England, Ireland and beyond;	Provide a more integrated and connected transport network in the Scottish Borders	Re-introducing passenger services on the Ashington, Blyth & Tyne rail line.	Maximise potential of the Port of Workington to support Energy Coast and reduce carbon emissions from road transport
Making it possible for more people to do business in and from D&G by providing sustainable connections to key business centres....	Promote and deliver more vibrant town centres	Maintaining and seeking enhancements to existing rail services.	Enabling more people walking and cycling to school and to work
Support vibrant places that provide employment, healthcare, educational and other services that people need and want....	Deliver a safer and better maintained road network	Enhancing connectivity through development of air and sea ports.	
Reduce the constraint of peripherality both between the region's main settlements and its outlying areas and between the region and external markets;	Promote low carbon transport and measures to help reduce the need to travel such as digital connectivity	Enhancing accessibility in rural communities, including community transport initiatives.	
Capitalise on improvements to critical long distance corridors to create new transport services, nodes and development opportunities for D&G;	Provision of a network of charging points for electric vehicles	Develop and promote sustainable transportincluding: walking, cycling, local bus services and effective travel planning.	

9.8. The Transport Plans, however, also give prominence to other themes and objectives that could provide a basis for joint action across the Borderlands.

- There is common reference, for instance, to sustainability and low carbon transport measures in all strategies. This includes measures to influence modal split (shift from road to rail or sea transport) and encourage walking and cycling for journeys to school and work.
- Promoting use of public transport is also noted, including improving attractiveness by providing better travel planning information and improving connectivity and integration of public transport systems.
- The use of smartcard technology is also referenced as a means of reducing barriers to the use of public transport.
- The application of some of these ideas to assist route-planning of visitors and tourists is noted in Dumfries & Galloway, while Scottish Borders also highlight the potential for strategic cycling and walking routes across the Borderlands.

10. BORDERLANDS: THE RESPONSE FROM STAKEHOLDERS

10.1. Twelve interviews were undertaken with a range of Stakeholders. Those interviewed covered: the three main sectors identified (Tourism, Energy and Forestry): covered the public, private and voluntary sectors; and spanned the whole Borderlands area.

The next three sections cover issues raised in the Interviews.

10.2. *Awareness of the 'Borderlands' Approach*

There was a good level of awareness of the Borderlands Initiative. Some had found out through contact with local authority colleagues who were directly involved in the initial meetings in Peebles and Carlisle in 2014. Others had picked up on the original Borderlands Report produced in 2013 by Northumbria University, while some had attended a meeting of Tourism officers organised as part of the initiative earlier this year. Some had become aware through an earlier interest in the House of Commons Scottish Affairs Committee's report, '*Our Borderlands, Our Future*'. However, there was an element of confusion over how the two different strands of a Borderlands approach related to each other.

10.3. *Support for a Borderlands Approach*

All those interviewed supported, in principle, a Borderland's approach and saw cross-border collaboration as adding value in a number of areas (see Table 20). However in supporting such an approach, there was a clear recognition of the challenges facing collaboration and of the rapidly evolving priorities within the devolution agenda.

In terms of governance, a majority of respondents expressed the view that the collaborative Borderlands approach should be utilised where it could achieve outcomes that individual councils couldn't achieve alone. Some argued that the formulation of yet another strategy – or creation of a new formal partnership – would be counter-productive.

10.4. *Borderlands: Opportunities for Collaboration*

As Table 20 indicates, those interviewed were asked to suggest specific niche areas or potential projects that could be developed, usefully recast, or strengthened through a more explicit Borderlands approach. Ten areas were suggested.

Table 20: Ten Opportunities for Collaboration - The View from Stakeholders

‘Strengthen the collaboration on Solway developments, for example, through supporting the development of the Solway Energy Gateway’, and ‘there could be a joint approach to the development of a Solway coastal pathway that covers Cumbria and D&G’.

‘There are real opportunities to develop a collaborative approach to Energy Storage Capacity and Technologies’.

‘There are greater opportunities for collaboration across Northumberland and Cumbria in respect of their LEADER programmes and in relation to their Rural Growth Networks’.

‘Is their scope for a collaborative approach to managing and promoting a key cross-border asset, the River Tweed’?

‘Has nobody thought of a more integrated cross-border approach to Timber producing and processing through a Borderlands Forestry Compact or by bringing the different County Timber Transport groups together’.

‘In terms of renewable energy, particularly wind power, there could there be a wider and co-ordinated approach to planning that covers a wider area across the Borderlands and within which councils could pool their expertise and share good practice’.

‘Local Authorities in the Borderland could examine a collaborative approach to furthering community participation and involvement in renewable energy development’.

‘There is scope for sustainable and activity-based tourism e.g. cycle routes. At present we have got a number of different routes – could they be not be linked or further developed to include a single Borderlands route’?.

‘It would be good to see more cross-border collaboration in terms of wider promotion of a number of Festivals such as those in Traquair, Wigtown, Berwick and the ‘Spring Fling’ in Dumfries and Galloway’.

‘If you want green tourism, the ‘Dark Skies’ approach could be developed further and more widely promoted, across the Borderlands. In particular, there could be improved branding and marketing to generate new (international) business in this area’.

11. OPPORTUNITIES FOR COLLABORATION

11.1. This study, while capturing differences in the economies and policy priorities of the Borderland local authorities, found that the available data reinforces the case for a collaborative approach across the Borderlands first discussed in the initial meetings of council leaders at Peebles, and then, Carlisle in the spring and autumn of 2014.

11.2. This section brings together the data analysis, the review of strategies and the views of stakeholders in order to identify realistic and achievable opportunities for Borderlands collaboration. This latter emphasis is important: the focus here is on practical, 'common-sense' joint-working which is alert to the challenges that such a collaborative approach would face in the context of a rapidly shifting devolution agenda.

11.3. These serve as constraints within which the Borderlands Initiative will need to operate:

- *Asymmetries*: joint-action will be challenging in areas where there are major cross-border differences in terms of regulatory systems, legal frameworks, or variations in funding regimes. There could also be challenges when trying to phase-in a Borderlands approach to strategies that are all at different stages of design/ implementation.
- *Resources Constraints*: there is a need to be realistic about the chances of success when bidding for, and capturing, new resources. Given this, it would also be important to look for synergies, cost-savings or sharing good practice across the Borderlands.
- *'Crowding Out'*: it is important that any separate Borderlands approach does not lead to overlap or even have a 'displacement' effect on existing projects.
- *Achieving objectives through other means*: a Borderlands approach would clearly add value to some initiatives and not others. The Borderland authorities are necessarily part of their own, council-specific, developments and other collaborative initiatives which would clearly impact upon their use of the vehicle of Borderlands. For example, objectives may be more appropriately pursued through City Deals, support for collaborative rural approaches or through a Combined Authority approach. It is worth noting however, that the recent devolution deal agreed between the Treasury and the North East Combined Authority (made up of seven councils in the North of the North East, including Northumberland) includes a future commitment to explore opportunities for 'strengthening economic cooperation with Scotland in areas such as tourism, culture, transport and industrial collaboration' (HMT and NECA, 2015).
- *The scale of collaboration*: while achieving the level of collaboration required to involve all 5 councils in the Borderlands area is realistic in some areas,

collaboration between as few as 2 councils could also draw upon the Borderlands approach and be of significance.

11.4 '*Agile*' Governance: Given the already 'cluttered' governance arena, with a myriad of organisations and plethora of strategies, it may be more appropriate to view the 'Borderlands' as a flexible network (rather than a formal partnership) which can:

- Improve cross-border communication;
- Share intelligence;
- Strengthen co-ordination;
- Bring the right people together to collaborate on specific projects;
- Share good practice; and
- Provide for a common voice on issues on mutual concern.

11.5. In order to provide a framework within which the suggested opportunities for collaboration can be located, a distinction can be made using two criteria: the different *scale* at which the opportunity can be taken forward and the *intensity* of the collaborative relationship required. In terms of *scale*, we can contrast macro-level collaborations that would be best suited to a common approach across the whole Borderlands area and micro-level collaborations that would involve joint working between a smaller number of Borderland councils and/or cover only a part of the area. In terms of *intensity*, we can contrast looser relationships that involve better communication, the exchange of ideas and the sharing of best practice, with the more firm relationship needed when lobbying governments, bidding for resources or co-operating on sectoral or strategic developments.

11.6. This, in turn, allows us to locate potential collaborations in four different categories (Table 21). The four categories are:

- *Macro-Higher Intensity*: A Borderlands-wide approach, involving all councils and a range of stakeholders. This could involve lobbying, bidding for resources or enabling sectoral or strategic development.
- *Macro-Lower Intensity*: A Borderlands-wide approach which: shares intelligence and good practice; establishes collaborative fora; and acts as a network to link similar initiatives across the Borderlands.
- *Micro-Higher Intensity*: Formal joint-working between a smaller number of Borderlands councils and their key partners.
- *Micro-Lower Intensity*: Networking and sharing information and best practice between a smaller number of Borderlands councils.

11.7. In outlining the range of possible collaborative opportunities, the aim is not to make a judgment over which is the 'best' option but to indicate both the different ways that a Borderlands approach can be utilised, and the variation in the scale and level of collaboration likely to be required. The eventual choice of opportunity will be shaped by the constraints on collaboration outlined (in 11.3 above), and by the priorities of the Borderlands councils and their partners.

Table 21: Borderlands: Collaborative Opportunities

<p>Macro-Higher Intensity</p> <p>Provide a Borderlands 'Voice' to EU and National Governments</p> <p>Promote the Borderlands as an exemplar of an innovative approach to rural development</p> <p>Develop a Borderland 'Brand' for Marketing and Promotion</p> <p>Develop a Borderlands Forestry Compact</p> <p>Develop a Borderlands Strategy for Community-Based Renewable Energy Projects</p> <p>Develop a Borderlands approach to Green (Sustainable) Tourism</p> <p>Develop a Borderlands approach to developing new low carbon technologies and products.</p>	<p>Macro-Lower Intensity</p> <p>Share good practice on planning approaches to onshore wind power</p> <p>Discuss and share approaches to using smartcard technology to reduce barriers for people using passenger transport</p> <p>Explore opportunities to increase linkages between manufacturing firms across the Borderlands</p> <p>Develop a joint-seminar series on the challenges and opportunities of an ageing population</p> <p>Establish a Borderlands Skills Network</p> <p>Establish a Borderlands Farmers Forum</p> <p>Identify opportunities for cross-border rural business development e.g. amongst artisan and small scale food companies</p>
<p>Micro-Higher Intensity</p> <p>Develop a new approach to the Solway as both an Energy Gateway and area of marine tourism</p> <p>Develop a strategy for energy capture and storage across Cumbria and Dumfries and Galloway</p> <p>Create an international strategy for Dark Skies tourism that draws upon both Kielder and Galloway Forest</p> <p>Develop a more co-ordinated approach to coastal paths and cycle routes on the east and west coasts</p> <p>Use the Borderlands approach to lobby for the extension of the 'Waverley' line to Carlisle.</p> <p>Explore how the recent designation of a North East Combined Authority can provide opportunities for promoting cross-border collaboration</p>	<p>Micro-Lower Intensity</p> <p>Develop a network of the free-standing market towns across Northumberland and the Scottish Borders to encourage the sharing of ideas on economic development</p> <p>Bring together interested parties to consider how to make the most of the key resource that is the River Tweed</p> <p>Bring together interested parties to consider how the existing EU LEADER programmes across Northumberland and Cumbria can be effectively integrated with other EU Programmes.</p> <p>Explore how particular areas of the Borderlands approach (such as rural development) can also incorporate and involve Durham County Council.</p>

12. KEY DOCUMENTS

Economic strategies

Association of North East Councils (2013) *“Borderlands: Can the North East and Cumbria benefit from Greater Scottish Autonomy?”*

Carlisle Economic Partnership (2015) *“Economic Review of Carlisle”*

Cumbria LEP (January 2014) *“EU Structural and Investment Fund Plan” (ESIF)*

Cumbria Local Economic Partnership (LEP) (March, 2014) *“The Four Pronged Attack Cumbria Strategic Economic Plan 2014–2024”*

Dumfries & Galloway (May, 2015) *“Dumfries & Galloway Regional Economic Strategy 2015-2020”*

Dumfries and Galloway Council Economic Development Service and Community Planning Executive Group (2014) *“Baseline Study and Regional Economic Profile 2014-2020”*

House of Commons Scottish Affairs Committee (2015) *“Our Borderlands - Our Future”* (available at <http://www.parliament.uk/our-borderlands-inquiry>)

Northumberland Economic Strategy (Final draft for Policy Board 13/11/14)

North East LEP (March 2014) *“A Strategic Economic Plan for the North East”*

Scottish Borders Economic Profile (June 2013)

Scottish Borders Economic Strategy 2023 (June 2013)

Scottish Natural Heritage (SNH): National Scenic Areas in Scotland
<http://www.snh.gov.uk/docs/B699724.pdf>

Scottish Natural Heritage (SNH): The Landscapes of Scotland (available at <http://www.snh.gov.uk/docs/A736465.pdf>)

<http://www.northumberlandnationalpark.org.uk/>

<http://www.landscapesforlife.org.uk/> Nature England: Landscapes for Life

<http://www.snh.gov.uk/docs/B699724.pdf> Scottish Natural Heritage (SNH): National Scenic Areas in Scotland

Connectivity

Carlisle Economic Partnership (2015) *“Economic Review of Carlisle”*

Cumbria LEP (January 2014) *“EU Structural and Investment Fund Plan” (ESIF)*

Cumbria Local Economic Partnership (LEP) (March, 2014) *“The Four Pronged Attack Cumbria Strategic Economic Plan 2014–2024”*

Dumfries & Galloway (May, 2015) *“Dumfries & Galloway Regional Economic Strategy 2015-2020”*

Dumfries and Galloway Council Economic Development Service and Community Planning Executive Group (2014) *“Baseline Study and Regional Economic Profile 2014-2020”*

North East LEP (2014) *Northumberland Economic Strategy* (Final draft for Policy Board 13/11/14)

North East LEP (March 2014) *“A Strategic Economic Plan for the North East”*

Scottish Borders Economic Profile (June 2013)

Scottish Borders Economic Strategy 2023 (June 2013)

General

BIS (April, 2015) *“Smart Specialisation in England, Submission to the European Commission”*

Business Register and Employment Survey (ONS)

Crichton Institute and Dumfries and Galloway Council, (2015) *Poverty and Deprivation in Dumfries and Galloway.*

[file:///C:/Users/egks1/Downloads/Poverty%20And%20Deprivation%20In%20Dumfries%20And%20Galloway%20\(2\).pdf](file:///C:/Users/egks1/Downloads/Poverty%20And%20Deprivation%20In%20Dumfries%20And%20Galloway%20(2).pdf)

English Indices of Deprivation (2015)

<https://www.gov.uk/government/statistics/english-indices-of-deprivation-2015>

HMT and NECA, 2015 *North East Devolution Agreement*

<https://www.gov.uk/government/publications/north-east-devolution-deal>

Mid-Year population estimates (ONS)

Nature England: Landscapes for Life (available at

<http://www.landscapesforlife.org.uk/>)

Regional GVA tables (ONS)

Scottish Natural Heritage (SNH): National Scenic Areas in Scotland
<http://www.snh.gov.uk/docs/B699724.pdf>

Scottish Natural Heritage (SNH): The Landscapes of Scotland
<http://www.snh.gov.uk/docs/A736465.pdf>

<http://www.northumberlandnationalpark.org.uk/>

Strategic Assessment for the Scottish Borders, (2013)
[file:///C:/Users/egks1/Downloads/2013_Strategic_Assessment_-_Final_2_%20\(1\).pdf](file:///C:/Users/egks1/Downloads/2013_Strategic_Assessment_-_Final_2_%20(1).pdf)

4. Sector Specific

Energy

Beyond Chapelcross: Transition Support Project, (14 June 2011)

Cumbria CC (2011) *Cumbria Renewable Energy Capacity and Deployment Study* (SQW Final Report to Cumbria County Council, Aug 2011)

Cumbria LEP (January 2014) *“EU Structural and Investment Fund Plan” (ESIF)*

Cumbria Local Economic Partnership (LEP) (March, 2014) *“The Four Pronged Attack Cumbria Strategic Economic Plan 2014–2024”*

Cumbria LEP (2012) *Business Plan Evidence Document* prepared by CRED & Cumbria Chambers of Commerce

Cumbria County Council (Aug 2011) *Cumbria Renewable Energy Capacity and Deployment Study* (prepared by SQW)

Cumbria Local Economic Partnership (LEP) (March, 2014) *“The Four Pronged Attack Cumbria Strategic Economic Plan 2014–2024”*

Dumfries and Galloway Energy Action Plan (2013)

Dumfries & Galloway (May,2015) *“Dumfries & Galloway Regional Economic Strategy 2015-2020”*

Dumfries and Galloway Council Economic Development Service and Community Planning Executive Group (2014) *“Baseline Study and Regional Economic Profile 2014-2020”*

Northumberland Economic Strategy (Final draft for Policy Board 13/11/14)

North East LEP (March 2014) *“A Strategic Economic Plan for the North East”*

Northumberland CC. (Feb, 2011) *“Renewables, low carbon energy and energy efficiency study”*

Scottish Borders Council (2009) *Community Renewables in the Scottish Borders*

Scottish Borders Economic Profile (June 2013)

Scottish Borders Economic Strategy 2023 (June 2013)

Scottish Enterprise (2015) M74 *Economic Growth Study: Phase 4 Report* (pp21)

Forestry

Carlisle Economic Partnership (2015) *“Economic Review of Carlisle”*

Cumbria Local economic Partnership (LEP) (January 2014) *“EU Structural and Investment Fund Plan” (ESIF)*

Cumbria Local Economic Partnership (LEP) (March, 2014) *“The Four Pronged Attack Cumbria Strategic Economic Plan 2014–2024”*

Cumbria and Lake District Trees, Woodlands and Forestry Strategy 2013

Dumfries & Galloway Forestry and Woodland Strategy (Adopted December 2014)

Dumfries & Galloway (May, 2015) *“Dumfries & Galloway Regional Economic Strategy 2015-2020”*

Dumfries and Galloway Council Economic Development Service and Community Planning Executive Group (2014) *“Baseline Study and Regional Economic Profile 2014-2020”*

Forestry Commission Scotland “The Scottish Forestry Strategy progress report (2014-15) and future implementation (2015-18)”

Forestry Commission Scotland *“Dumfries and Borders District Strategic Plan 2014-2017”*

Northumberland Economic Strategy (Final draft for Policy Board 13/11/14)

North East LEP (March 2014) *“A Strategic Economic Plan for the North East”*

Northwoods (2014) *“Roots to Prosperity” An Action Plan for the Growth and Development of the Forestry Sector in Northern England 2014*

Scottish Borders Economic Profile (June 2013)

Scottish Borders Economic Strategy 2023 (June 2013)

<http://www.forestry.gov.uk/website/forstats2014.nsf/0/D7DD6DF6687BC57880257A32004E1A4F>

Tourism

Cumbria LEP (2012) *Business Plan Evidence Document* prepared by CRED & Cumbria Chambers of Commerce

Cumbria Local economic Partnership (LEP) (January 2014) “*EU Structural and Investment Fund Plan*” (ESIF)

Cumbria Local Economic Partnership (LEP) (March, 2014) “*The Four Pronged Attack Cumbria Strategic Economic Plan 2014–2024*”

Cumbria Tourism (2008) “*Making the dream a reality: The Tourism Strategy for Cumbria 2008-2018*”

Dumfries & Galloway (May, 2015) “*Dumfries & Galloway Regional Economic Strategy 2015-2020*”

Dumfries and Galloway Council Economic Development Service and Community Planning Executive Group (2014) “*Baseline Study and Regional Economic Profile 2014-2020*”

Dumfries & Galloway Regional Tourism Strategy 2011-2016

Midlothian Council & Scottish Borders Council (2015) “*Midlothian & Scottish Borders Tourism destination Audit 2015*” Compiled by Tourism and Leisure Solutions in partnership with Sue Crossman, Tourism Projects & Consultancy

Northumberland Destination Management Plan 2015-2020

Northumberland Economic Strategy

North East LEP Strategic Economic Plan (March 2014)

Scottish Borders Economic Profile (June 2013)

Scottish Borders Economic Strategy 2023 (June 2013)

Scottish Borders Tourism Partnership (2013) *Scottish Borders Tourism Strategy 2013-2020*